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1. THOMPSON, L. J. AND PROCTOR, R. C.:
North Carolina Medical Journal, Sept., 1953.

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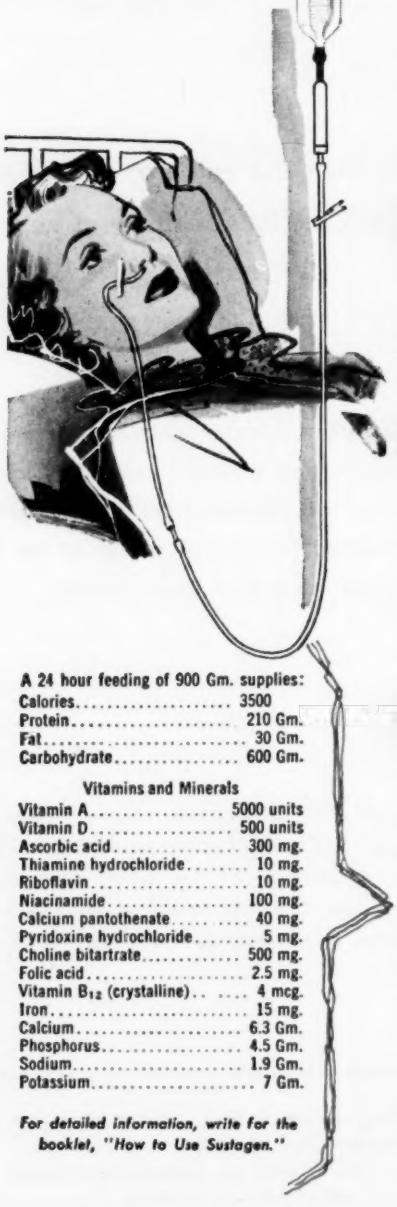

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KOREA: CURRENT PSYCHIATRIC PROCEDURE AND COMMUNICATION IN THE COMBAT THEATER

CAPT. ROBERT M. EDWARDS, M.C., A.U.S.,[1] AND DONALD B. PETERSON, COLONEL, M.C., U.S.A.[2]

INTRODUCTION

Our nation, engaging enemies who far outnumber her in manpower, must employ a rigid economy in the combat use of available resources. We cannot afford the luxury of having one army fighting and another shuttling back and forth through unwarranted medical evacuations. Military psychiatry, adapting to this need, has contributed to a firmer discipline designed to prevent avoidable manpower loss due to adjustment difficulties. The system now works so well in Korea that, for practical purposes, the only psychiatric evacuations are of psychotics.

Establishing this discipline in combat rests mostly with the division psychiatrist. As a staff officer of the division surgeon, his primary concern is the sound handling of infantrymen from the psychiatric point of view. This turns him toward personnel assignment, reassignment, trouble-shooting, teaching, and indoctrination.

The orientation of other medical officers to their psychiatric responsibilities is perhaps his major staff function. While fully aware and prepared for their responsibility of treating the sick and wounded, these physicians are naturally not always so much aware of the fact that it rests with them to decide whether each soldier who presents a complaint is thereby sick, incapacitated, and requiring treatment, or is nonetheless fit for duty. Yet, in the military, no one else can decide. By teaching and emphasizing the facts of motivation, and sharing the onus of difficult decisions, the psychiatrist gives support to other medical officers.

As the combat physician strives to remain medically objective, he inevitably encounters soldiers who try to avoid duty by the medical route. For proper handling of such patients, a clear understanding of the problem at all levels, a practical procedure and definition of medical and administrative responsibility, and good communication between the doctor and command are necessary. In Korea, building on the basis of the psychiatric advances of World War II, we believe these aims have been attained.

It is the purpose of this paper to illustrate the actual operation of both policy and communication in one case, a patient from the character disorder group. The broader combat psychiatric picture is well described elsewhere(1, 2, 3).

CASE HISTORY

The patient, a well-built, 25-year-old white infantry sergeant, first came to the attention of one of the authors (RME) in May 1952, having been sent in from his unit aid station for neuropsychiatric evaluation following a purported concussion. Before he could be interviewed, and without permission, he hitch-hiked back to his outfit. It was decided not to call him back.

About a month later he returned, complaining of relentless headache. Examination disclosed no defects. He was contemptuous and impatient in manner. He declared, "I can't stand it any longer," though flatly denying any fear of battle. His battalion surgeon said he was considered an aggressive soldier with leadership ability, supposedly rash in battle. The diagnosis was antisocial personality. He was returned to duty.

On July 7 he made a third appearance, this time even more insistent that he must be evacuated because of his headache, but otherwise showing nothing new. A letter to his company was sent at this time. It read:

"Division Psychiatrist to Company Commander:

"1. Sgt. N. L. was given a neurological and psychiatric evaluation on 7 July 1952.

"2. His chief complaint is headache, described . . . as 'severe, generalized, disabling.' . . .

"3. The neurological examination is entirely negative.

"4. In psychiatric interview he is oriented, alert, and cooperative, but in a resentful manner. Memory is intact and judgment not impaired. Mood is angry, affect extremely hostile. Intelligence is estimated at above average. There is no indication of psychotic thinking.

"5. He gives many indications of poor motivation. He says, 'I've done my share here . . . I was told

[1] Psychiatrist, 25th Infantry Division (March-September 1952).

[2] Neuropsychiatric Consultant, Medical Section, U. S. Army Forces, Far East.

I should never come back to Korea, but I had to volunteer. . . .'

"6. The headache of which he complains was first noted in battle in Korea in 1950, following a 'concussion.' He was evacuated to the U. S. and given approximately 9 months of hospitalization at this time.

"7. Ordinarily concussions, without permanent organic residuals, give no symptoms after approximately 2 weeks. However, secondary gain from hospitalization and other advantages of illness often prolong the symptoms long after all organic damage has been repaired. This appears to have been the case with L.

"8. His headache, at present, is not due to organic causes. No headache based on emotional factors should be handled by medical evacuation, however insistent its victim may be. . . .

"9. Poor motivation for duty is not an adequate reason for medical evacuation.

"10. . . . It is my professional opinion that he is fit for duty . . . in his present assignment."

Disagreeing with the conclusion, the patient went AWOL to a medical station 20 miles south. Lacking a psychiatrist, they evacuated him to a neuropsychiatric treatment center near Seoul. Meanwhile L's platoon leader called, looking for him, and mentioned that before his latest evacuation he had sentimentally bid everyone farewell, apparently anticipating no further medical resistance to his rearward journey.

At the center in Seoul, a visiting civilian psychiatric consultant to the Surgeon General, during a medical meeting, held a teaching interview with Sgt. L. In this interview, enormous hostility as well as some developmental information was elicited, subject to all due reservations about his veracity. He said that he had run away from home to work on his own at the age of 14; that his happy marriage of 2½ years, consummated after a 1-week courtship, was still childless; and that he was devoted to his younger brother, a member of his combat outfit, who held a Purple Heart and was soon to rotate home.

Major dynamics suggested in the case were: subconscious doubts of his masculinity with reactive overassertiveness; efforts to outdo his brother, a sibling rival; feelings of failure as a husband. Reality elements were also noted—the most important, his desire to leave the front.

It was concluded that he should have a short hospitalization, during which a friendly relationship would be cultivated in order to promote insight into these mechanisms, even though the psychopathic traits, poor motivation, and limited time seemed to make the outlook unpromising. On L's discharge, a second letter was sent:

"Seoul Treatment Center to Company Commander:

"1. Sgt. N. L. was seen in neuropsychiatric consultation from 14 July to 22 July 1952.

"2. Patient entered this organization with complaints of headaches and passing-out spells which began some months ago after a concussion grenade exploded in (his) vicinity . . .

"3. While here the patient was obstructionistic and hostile in his attitude and on one occasion went AWOL . . . he may react to stress with excitability and ineffectiveness. . . . His relationship with other people is continuously fraught with fluctuating emotional attitudes because of strong and poorly controlled hostility, guilt, and anxiety.

"4. Upon completion of careful examination, this case has been diagnosed as an emotional instability reaction. He will not benefit from further hospitalization. . . . This man is capable of doing full duty and if he . . . [fails] we would suggest appropriate administrative action be taken."

Again taking exception to psychiatric opinion, the patient once more went AWOL and, in the ebb and flow of battle, somehow attached himself to another infantry company, in the 2nd Division. However, form soon reasserted itself, and he appeared in the division neuropsychiatric tent as a casualty. The third letter informally describes this episode:

"2nd Division Psychiatrist to Company Commander (30 July):

"1. Sgt. L. was admitted on 28 July seemingly unconscious. Whenever we approached him, even to take his pulse and temperature, he was resistant and hostile in movement and speech. Yesterday and today, although physically able to get about, he remained in bed. . . . He said his head hurt—that he had been injured in Korea in '50 and had 4 concussions. Frankly, this sounds doubtful. . . . He also gives a story of leading mess sergeants and cooks onto Old Baldy. . . . (Upon calling him into my office) I began to ask him gently what was wrong. He screamed angrily, 'my head—my head —.' I told him we could give him some pills. . . . At that he yelled, 'Pills, pills—all I hear is pills . . .' He took my desk . . . lifted it and dashed it to the floor and started to threaten me. It was only after several corpsmen came running that he sat down, still fuming.

"According to 8th Army regulations and my own feelings and diagnosis, this man does not deserve further hospitalization. . . . We are discharging him to duty under (MP) guards. This is a disciplinary and administrative problem, not a medical one, and should be dealt with accordingly."

This firm handling somewhat chastened the patient. What then transpired is described in our fourth and final letter:

"2nd to 25th Division Psychiatrist (31 July):

". . . This evening L. voluntarily came into my office and told a most unusual story. He said that in Fort Benning (Georgia), he was given the choice of being court-martialled or coming to Korea. He chose the latter, and has been here for 5 months serving in the same infantry company as his brother. About 10-12 days ago he states he was evacuated to the treatment center because of concussion. From there he was transferred to the evacuation hospital [he actually went AWOL to it]. Here, he states, the doctors insinuated that he was 'scared to fight.' He was so angry . . . that he went AWOL from there. He wanted to prove he could still fight. He heard that the 2nd Division sector was active and hitch-hiked up.

"After telling me this, he requested that he be

sent to the evacuation hospital to face possible court-martial, and then be sent to the 25th Division. . . .

"Although I formerly felt that this was an aggressive reaction, I now lean more toward psychopathy. I hope this information will be of use. . . ."

L. was then returned to the 25th Division; court-martial was considered but eventually dropped in favor of direct reduction in grade to private. He was transferred from his line company to regimental headquarters, a less stressful duty. There, his course continued turbulent. He indulged in periodic drinking excesses, tantrum-like displays, and soliloquies about the injustices he had suffered. One evening, after hearing that his former platoon leader had been killed, he threw himself, writhing, onto his bed, and was said by alarmed witnesses to have been wrestling with his carbine. When another soldier tried to relieve him of it, it discharged, severing the web between 2 of L's fingers. The other soldier could not say which of them had actually pulled the trigger.

At this time, formal effort was made to effect an administrative discharge, and in working up the case from this standpoint, further interesting items were added to the record. On his first tour in Korea, in August 1950 with the paratroops, he had become lost within 3 weeks, was then picked up by an infantry division and in another week, he was evacuated with alleged concussion and amnesia. This was the record upon which he justified his conviction that he had already borne his share of the battle. Further, the record showed that while he had indeed applied for overseas duty again, it was for Europe, not Korea.

New light was also shed on his latest concussion by inquiry among his infantry squad—frequently the only source of objective data on the actual combat performance of individuals. The patient, with his brother and others, had been quietly sitting in a bunker, when he suddenly exclaimed: "See those Chinese! I'll get them!" and dashed out of the bunker and down the slope. He was followed by his brother, who brought him back apparently unconscious, saying that he had been felled by a concussion grenade. The spectators, however, had heard no explosion and seen no Chinese.

At latest reports, new divergences of attitude have arisen among line officers about him, for the rumor has somehow pervaded his organization that he has a metal plate in his skull, and considerable sympathy has been engendered in the hearts of many. New pressure for his evacuation arose, necessitating an X-ray of the skull, which proved normal. L., however, blandly denies having any idea where the rumor originated.

Discussion

Among the psychiatrists in the case, there appears to have been consistent agreement. None thought the patient was psychoneurotic or psychotic. All took note of psychopathic trends, though disagreeing on their relative importance. All were agreed on the proper disposition: returning him to full duty with his parent organization, where he could either function effectively or, failing that, be eliminated from the service administratively. Though in no sense preening ourselves on our therapeutic achievement in this case, we can none the less take satisfaction from the evidence it provides that many psychiatrists, of varying civilian backgrounds and persuasions, have come to a like combat orientation that will hold up in cases as perplexing as this one.

Now we may ask, is there a key to all of this patient's seemingly strange behavior? It would be well to admit right away that our total verified facts are limited, but that the patient has presented us with a great deal of fiction we can scarcely doubt. Indeed, the only real consistencies in his stories and actions appear to be those arising from the interpersonal situation: all present a picture justifying the evacuation of the patient. They may be considered as successive gambits, as follows: (1) Alleged concussion in 1950, 9 months' hospitalization, alleged voluntary return to Korea, another concussion—the picture of a fine, well-motivated soldier, mistakenly returned to Korea and now injured, *ergo*, deserving of re-evacuation. (2) Sent back to Korea as alternative to court-martial, threatening and destructive behavior toward psychiatrist, corpsmen, and other innocents—the picture of a man, though perhaps once a fine soldier, who has now become positively dangerous to his comrades and, hence, requires evacuation. (3) Contrition: "I only wanted to show I was a good soldier," a plea to be sent back to face the music. A soldier driven by pride to shoulder too heavy a combat load: "Doctor, have a heart. Send me away from this."

Behavior otherwise incomprehensible now falls into place. His repeated AWOL's from various psychiatric facilities represent shopping around for the "right," *i.e.*, the evacuating, doctor. The romance of the metal plate in his skull, the self-inflicted or provoked wound, are later refinements developed after simpler and less costly approaches fail.

To summarize, this patient represents a rather marked example of the acting-out environmental manipulator, whose approaches are in classical and logical sequence. The incidence of such cases varies directly with the

ease of attainment of medical evacuation. Since this man had already once successfully managed an evacuation, his case, at least in part, represents a late result of unwarranted evacuation, with fixation not so much of symtomatology as of false concepts. Needless to say, such errors reflecting the general haste of our entry into the Korean War are now corrected. At one U. S. general hospital, for example, where early nonpsychotic psychiatric evacuees from Korea were received, the over-all pathology demonstrated was such that, under current policies, not 10% of them need have been transferred outside the division where they would have continued to serve effectively.

It may be argued that by this approach a deeper understanding of the patient's conflicts and motivations cannot be achieved. This we accept, but it really is not a point at issue. We have concluded that in fighting a war it is impracticable as well as futile to commit our limited facilities to attempts at long-term therapy. The demands of war on the citizen-soldier are current, pressing, and allow no time-out for alterations in his basic personality. In addition, we doubt that his motivation for such treatment would be adequate when the end-result of "cure" would be return to the situation of real personal danger from which the symptoms had permitted him to escape. A successful struggle, on the other hand, with the problems he must face in combat should enhance the individual's effectiveness, whatever his tasks, for all time to come. This is what we now seek to offer him.

Summary

The case of a 25-year-old infantryman who became a neuropsychiatric casualty in the Korean War is presented, to permit illustration of the application of current military psychiatric concepts, method of communication, and discussion of their rationale.

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DISCUSSION

Col. Albert J. Glass M. C., U. S. A.—This paper stresses rightly the necessity of objective and firm management of psychological problems within the combat zone. Experiences in World War I, World War II, and the Korean Campaign have amply demonstrated that the psychiatrist who functions in forward areas should not permit his tremulous and weary patients the immediate but temporary benefits of neurotic disability gained by medical evacuation out of the combat zone; for there so frequently follows a repetitive pattern of tension symptoms, or hostile behavior, or both. A firm approach in the treatment of psychiatric casualties not only benefits ultimately the individual by preventing later neurotic or behavioral disability, but is a necessary policy for the preservation of unit motivation by blocking the powerful suggestion to similar conduct and symptoms that is produced by loose medical discipline.

From another standpoint, the case presented by this paper can perhaps be considered as representative of the so-called "psychopath" category. Questions are frequently asked of military psychiatrists as to the combat effectiveness of "psychopaths." The detailed case presentation of this article can be regarded as a rather typical example of performance in the combat zone. Commonly there are initial efforts to excel in battle, and not infrequently there may be one successful combat performance. Almost inevitably however there occurs some dramatic symptomatology or other reason for their removal from battle. Efforts to continue such persons on combat duty are marked by AWOL's, exhibitionistic gestures at returning to combat, hostile activity toward medical or line officers, and repeated hospitalization with bizarre symptoms and an unreliable or evasive history of their difficulties. Also common is their characteristic ability to convince others, including officers, of their suffering and previous excellent character.

The defect of the "psychopath," insofar as combat is concerned, lies in his inability to become identified with others or become part of the combat group. Thus he is denied perhaps that most powerful defense against combat fear, namely, group identification. Because of this disadvantage, the "psychopath" is truly alone with his fears in a combat situation that literally demands the closeness of others for emotional support and protection.

Briefly summarized, the authors have made a valuable contribution by their forthright case presentation which clarifies important issues of combat psychiatry.

PSYCHOTHERAPY IN THE COMBAT ZONE[1]

ALBERT J. GLASS, COLONEL, MC, U.S.A.[2]

Superficially, psychotherapy in the combat zone may be regarded as a rather brief procedure that utilizes simple techniques and in no way is unusual except for the special environment in which treatment is performed. This viewpoint is quickly altered by practical experience in the therapy of acute psychiatric casualties, for it then becomes evident that the task requires a high degree of discriminatory sense, demands a practical knowledge of the combat situation, and taxes severely the emotional resources of the therapist. An understanding of the concepts and techniques currently employed in this type of psychotherapy perhaps can be best appreciated by detailing the vicissitudes that characterized its historical development.

Although mental disorders associated with or secondary to combat had been noted by military surgeons prior to World War I, their great frequency during this conflict made necessary the first serious medical efforts to salvage the large manpower loss. Effective treatment was gradually developed by the trial and error method. Early in World War I(1), the British and French medical services became aware that the location or level in respect to the battlefront where therapy was given was of crucial importance. When mental casualties were evacuated to rear hospitals, resistance to improvement was the rule; symptoms became fixed and chronic disability resulted. This was in sharp contrast to the striking results obtained in or near the combat zone, where 60-75% of acute war neuroses were restored to full duty by brief periods of therapy not exceeding 7 days. It was further established that best results were obtained by simple treatment methods that included rest, food, encouragement, suggestion, and persuasion.

The entry of the United States into World War I found the American medical service fully aware of the British and French experiences with war neuroses and prepared to apply the principles of forward psychiatric treatment(2). Logistical difficulties hindered their early efforts, but steady progress was made toward instituting an effective psychiatric program, which in the latter months of the War contained the following 3 levels of treatment: (1) therapy of mild cases in the combat zone by division psychiatrists; (2) close support for psychiatric evacuees from the combat zone by provisional neurological hospitals, situated at field army level; and (3) special neuropsychiatric base hospitals, located in the forward communication zone, that provided the more prolonged treatment needed in severe or resistant cases.

American psychiatrists confirmed and extended the concepts and methods developed by their allied colleagues. Together with many of the British and French psychiatrists (3), they came to consider war neuroses as primarily a psychological disorder and discarded the organic theories of causation that were contained in the term "shell shock." To support the psychological concept were the following observations: (1) the rarity of war neuroses among the wounded and prisoners who had also been exposed to mechanical shock or blast, (2) the fact that severe brain and spinal cord injuries were not accompanied by symptoms similar to those in "shell shock" in which injuries of a lesser degree were assumed, (3) the clinical resemblance of war neuroses to civilian neuroses in which the element of injury is lacking, and (4) the rapid improvement following brief psychological treatment at forward areas. All allied observers agreed that war neuroses provided escape from an intolerable situation which wounds solve happily for most men, thus explaining the mild exhilaration so often seen among the wounded. American psychiatrists, in particular, emphasized a concept of battle stress acting upon the total resources of the combat participant. They saw mental breakdown in battle as a failure or decompensation of the resistance forces that

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sustain the soldier against the various situational traumata of combat and identified the major elements of this defensive system as individual personality traits, physical status, group loyalty, and leadership.

The American psychiatrists stressed and elaborated another basic principle of combat psychotherapy in addition to the previously mentioned level of treatment and brief simplified methods, namely, the creation and maintenance of a proper therapeutic atmosphere during treatment(4), aimed at stimulating and maintaining what was conceived to be an inherent desire of patients with war neuroses to return to their combat units. This emphasis upon fostering positive motivation through milieu therapy arose from observations of the gain in illness manifestations so prevalent in the combat zone and a belief that persons in the early stage of war neurosis were highly suggestible and thus readily swayed by various environmental influences. In establishing a proper therapeutic atmosphere, the psychiatrist's attitude toward patients was considered of primary importance; it was also vital that all other personnel in the treatment facility consistently show a similar attitude by their manner, speech, and behavior.

Following World War I, the manifestations and problems of the war neuroses took on an entirely different aspect. The fluid reversible acute psychiatric states were replaced by chronic neurotic syndromes that either represented a continuation of the combat breakdown, were a recurrence of a wartime neurosis, or arose in individuals who had no record of previous nervous disability during the war. The neurotic war veterans, separated from the dynamic elements of the combat situation seemed to have combined or integrated battle trauma with the neurotic elements of personality to form a fixed psychological disorder which reacted to usual difficulties as if they were battle stimuli. In effect they fought the battle of civil life with the wartime symptoms of tension, noise sensitivity, explosive outbursts of rage, helplessness, and battle nightmares. Observers(5) were impressed by two features of chronic war neuroses: First was the ubiquitous gain in illness mechanism that was tenaciously used by most patients; second was the severe intrapsychic crippling that apparently operated in all spheres of endeavor. It seemed as if the trauma of battle had permanently constricted ego function, much as the trauma of early childhood may produce a limitation of emotional development.

Because of the above characteristics, the neurotic war veteran posed a difficult problem in treatment. The total impact of the chronic war neuroses upon psychiatric thought was to place emphasis upon intrapsychic pathology and to paint a gloomy prognosis for victims of psychic battle trauma. This concept all but obscured the importance of various realistic elements of the combat situation and the more favorable recovery prospects of acute psychiatric casualties.

At the onset of World War II American medical service was curiously unprepared to carry out a program of forward psychiatry, despite the well-documented psychiatric experiences of World War I. Psychiatrists had been deleted from assignment with combat divisions and there were no provisions made for special psychiatric treatment units at the field army level or in the communication zone. Reasons for these apparent deficiencies are not clear. Perhaps it was believed that war neuroses were a characteristic phenomenon only of the static trench warfare of World War I and would not be produced by the rapid movement tactics presumed for World War II. At any rate the inevitable occurred. The winter and spring battles of the Tunisian campaign in late 1942 and early 1943, the first large-scale land fighting by American troops, brought forth large numbers of psychiatric casualties. As in the early phase of World War I, these patients were evacuated hundreds of miles to rear hospitals whose psychiatric facilities were insufficient to handle the unexpected case load. There resulted a fixation of symptoms and the formation of chronic disabling syndromes. Relatively few psychiatric casualties were recovered for combat duty and many were evacuated to the United States as unfit for further overseas service.

The dramatic clinical picture exhibited by the war neuroses at rear hospitals in North Africa deeply impressed the early psychiatric observers as they so commonly fascinate the

newcomer to combat psychiatry. Patients appeared overwhelmed by the stress of their recent battle experiences and presented many changeable manifestations of vague anxiety along with varying degrees of personality disruption. Since the florid symptoms were the center of attention, all therapeutic efforts were directed toward their alleviation. Methods of treatment aimed at the discharge of anxiety, which seemed to choke the patient's function and cause his distressing symptoms. The therapeutic principles of catharsis and abreaction were applied in several treatment methods, the most common of which utilized barbiturate interviews to relieve tension. Barbiturate interviews in the treatment of war neuroses were first introduced by British investigators(6). This method was later elaborated by Grinker and Spiegel(7) and became the instrument of choice for reviving partially or completely forgotten traumatic battle episodes. Along with the release of anxiety by the process of abreaction, the repressed battle experience was restored to consciousness, thus losing most of its previous potential to evoke anxiety.

Despite the undoubted improvement obtained by catharsis and abreaction in many of the war neuroses, only rarely could such cases be recovered for combat duty. The patients pleaded or insisted that they should not be sent back to combat. As the therapist participated with his patient in the dramatic reliving of battle scenes, he almost invariably identified with the distress and needs of the patient and was therefore impelled to promise relief from future battle trauma. Thus it seemed that abreaction methods were applicable mainly in severe or resistant cases where the therapeutic goal was either recovery for noncombat status, or the relief of regressive or other grossly incapacitating symptoms; although some psychiatrists believed that these techniques would be more effective if applied earlier before time and distance had caused a fixation of symptoms. However, another therapeutic approach was being made during this period. In the spring of 1943 Hanson and Tureen(8), working at a forward evacuation hospital with fresh psychiatric casualties, were able to restore 50% of their received patients to combat duty by a 4-day period of rest, food, and encouragement, and thus re-established the value of the treatment methods developed in World War I.

The experiences of the North African Campaign clearly indicated the need of improving existing psychiatric facilities for the next combat phase. Accordingly, during the Sicilian Campaign that began in July 1943, psychiatrists were assigned to all evacuation hospitals and a special neuropsychiatric hospital was established at Bizerte, in North Africa. However, the evacuation hospital psychiatrists could not function effectively because battle casualties and disease occupied almost all of their available beds and necessitated the evacuation of most mental casualties to the special psychiatric unit at Bizerte. Although patients were received at this hospital within 24 to 48 hours after their breakdown, a disappointing number, approximately 15%, were salvaged for combat duty. Again barbiturate interview techniques caused varying degrees of improvement but rarely produced sufficient recovery for combat duty. Indeed, any therapy, including usual interview methods, that sought to uncover basic emotional conflicts or attempted to relate current behavior and symptoms with past personality patterns seemingly provided patients with logical reasons for their combat failure. The insights obtained by even such mild depth therapy readily convinced the patient, and often his therapist, that the limit of combat endurance had been reached as proved by vulnerable personality traits. Patients were obligingly cooperative in supplying details of their neurotic childhood, previous emotional difficulties, lack of aggressiveness and other dependency traits, or any information that displaced onus for the current combat breakdown to remote events over which they had no control and therefore could not be held responsible.

The difficulties encountered in recovering patients for combat duty and the passive dependent character quality so readily displayed by most cases at this level of treatment influenced many of the psychiatrists, including the writer, to place undue emphasis upon predisposition or personality as a major etiologic agent in the war neuroses. The well-known formula "stress + personality = reaction" was seized upon to provide a

simple rational basis for explaining the cause of psychological breakdown in battle. This became a familiar World War II theme: everyone has his breaking point, depending upon the amount of battle stress inflicted and the degree of individual vulnerability.

Unfortunately, the stress—personality concept tended to produce a defeatist and fatalistic attitude to the problem of the war neuroses. From a practical standpoint neither the amount of external trauma nor the strength of the personality can be measured with the accuracy required for the operation of the stress—personality formula. Even if external stress is equated with the number of combat days it would be necessary to differentiate the various types of combat. But even more important are the many imponderable elements of battle, such as an inspiring leader, a strong buddy, group unity, the quality of communication and physiological status, all of which complicate any measurement of external stress. In estimating personality one faces even greater difficulties, for the only source of information, the patient, too readily accents past inadequacies and problems, in an effort to explain both to himself and others that the reasons for his current failure stem from remote or past causes beyond his control. When the incomplete quantification of external stress is considered with the imperfect date of personality, it becomes evident that any practical utilization of the stress—personality equation is misleading, even though such a concept may be basically correct.

In retrospect, the adoption of such a simple operating viewpoint during this period can be understood when it is realized that the psychiatrists present were remote spectators of battle rather than forward observers. They possessed no first-hand knowledge of defenses successfully employed by combat participants but only saw and heard from their patients highly personalized and exaggerated accounts that emphasized the horrors of war and the personality's inadequacy to withstand such external stress. It should be stated, however, that the psychiatric personnel assigned in North Africa and elsewhere in the theater were not satisfied with the results of their efforts. They were aware that the level at which they functioned made impossible the use of one of the basic tenets of combat psychotherapy, namely, that the best results of treatment are obtained in or near the battle zone.

An opportunity to expand and improve the psychiatric program came in November 1943, when a psychiatric treatment unit was established in 5th Army, which was then slowly fighting its way up the Italian peninsula against strong opposition. This was a provisional field-type medical facility to which psychiatrists were added. It was located at evacuation hospital level and permitted psychiatrists to become acquainted with some of the environmental conditions under which men fought. A further impetus came in December 1943 when the War Department authorized the assignment of division psychiatrists. They became operational in January 1944 and thus were re-establised the 3 levels of psychiatric treatment that had existed in World War I. With psychiatrists functioning in the divisions and in the Army area, pertinent observations and reliable data concerning the combat situation were made available, and it became increasingly clear that psychological breakdown in battle was not a simple phenomenon, but rather a complex result of multiple physical and psychic forces struggling for emotional control. Of special significance was the growing awareness that the stimuli of battle itself evoked a defensive process that sustained men in combat. This mechanism has its origin in the fact that the lonely, fearful battle environment forces individuals to join together for protection and emotional support. As they continue to fight and survive together what began as mere instinctive huddling is crystallized into a powerful emotional bond of love and concern for comrades which deflects fear from the self and creates a compelling internal motivation for remaining with or rejoining the combat group.

Recognition of this sustaining mechanism, termed group identification, made it possible to understand the favorable results obtained by simplified brief forward psychiatric treatment. The acute phase of combat breakdown is an amorphous and reversible condition due to temporary disruption of the individual's defenses. As noted in World War I, such

cases are highly suggestible because of a struggle between two conflicting desires, one of which, motivated by the ties of group identification, insists on rejoining the combat unit; the other, driven by fear for the self, seeks withdrawal from the painful battle situation. Brief treatment in the combat zone succeeds because time and distance have not yet dimmed the powerful inner devotion to the group, whereas evacuation to a safe and comfortable rear hospital reinforces the demands of self-preservation. Simple methods of psychotherapy that stimulate and encourage positive feelings for the group are far more efficacious than any complex or time-consuming treatment which inevitably promotes self-needs and brings forth dependent character traits. The benefits of a proper therapeutic atmosphere or milieu therapy are also understandable as a further step toward influencing the attitude of patients toward group motivation.

In essence, the repeated success of brief forward treatment demonstrated the need for repressive or suppressive therapy rather than uncovering depth techniques, for it became clear that the goal of treatment for the purpose of return to combat duty was the restoration of previous defenses instead of attempts to alter or reorganize the personality. Based upon the foregoing considerations, there were evolved in the latter half of World War II(9) various intradivisional treatment regimens which contained measures for the relief of physical factors, such as food, sleep, and rest, combined with brief therapeutic interviews directed almost solely at the feelings, experiences, and attitudes of the patient in regard to combat. Usually only superficial techniques were employed, including ventilation, reassurance, persuasion, and firm suggestions to the patient that he would rapidly improve and in several days be ready to rejoin his combat unit. The treatment facilities were simple tent units in which there was provided a therapeutic atmosphere which implied to the patients that combat exhaustion was a logical consequence of battle wear and tear and required only a short period of recuperation to produce recovery and return to full duty. Patients deemed unsuitable for combat duty were evacuated to the second level of psychiatric treatment at Army level. Here similar therapy methods were instituted but usually the goal was salvage for noncombat duty. Not infrequently the previous defensive mechanism of group identification produced guilt reactions which required special handling by discussion and reassurance. In such cases, as in many others, the insistence of the psychiatrist that the patient perform noncombat duty was a necessary therapeutic measure to counteract feelings of failure and loss of self-esteem that continue symptomatology and more or less plague most psychiatric casualties who are evacuated out of the war zone.

The end of World War II found army psychiatric facilities operating at a high level of effectiveness and in the process of investigating efforts to further improve the treatment program.

The lessons of combat psychiatry learned during this conflict were not forgotten in the postwar period. Through appropriate regulations, training manuals, and other official military publications, the principles and methods of World War II field psychiatry were incorporated into the doctrines and dogma of Army Medical Service. Beneficial results from this preparatory work were soon demonstrated, for, despite the abrupt onset of the Korean campaign on June 25, 1950, division psychiatry became operational within 6 to 8 weeks after the beginning of hostilities (10). By October 1950, three levels of psychiatric treatment were established and both the methods and effective performance of psychiatry in the latter half of World War II had been duplicated. From this point, further gains in combat psychotherapy were achieved mainly by a displacement forward of the treatment site for mild psychiatric casualties to the battalion and regimental level. It had long been suspected that the simple technique of forward treatment could be adequately performed by general medical officers if they were properly indoctrinated. This utilization of battalion and regimental medical officers as front-line psychiatrists was gradually effected, beginning in December 1950.

Under this plan the division psychiatrist functioned more as a consultant and less as the treatment specialist to whom all psychiatric problems were evacuated. He regularly

visited all battalion aid stations and regimental collecting points in order to both instruct in methods of combat psychotherapy and assist in the evaluation of doubtful cases. Treatment at the battalion and regimental level was limited to mild cases that could be returned to duty within 24-48 hours. More severe cases were evacuated as previously to the division psychiatric unit, located in one of the clearing company platoons. The advantages of the more forward psychiatric program were immediately apparent, not only in increased number of cases recovered for combat duty, but in the lessened anxiety of patients who were returned to their unit by this method. Treatment at the more forward level preserved to a greater extent the all-important emotional ties with the combat group and nullified the inevitable gain of illness that was stimulated by evacuation to the safe clearing station, even though this facility was situated within the division and technically, at least, within the combat zone. It should be realized, however, that psychiatric treatment at battalion or regimental level is not a practical procedure during withdrawal or other unfavorable tactical situations.

Another development of psychiatric interest involved the reclaiming for combat duty of earlier psychiatric casualties in the Korean campaign, who had been assigned to noncombat positions in Japan. All such cases were re-evaluated after 3 or more months of such limited assignment. Approximately 40% were considered sufficiently recovered to warrant their return to combat duty. Relatively few instances of recurrent disability were noted. Perhaps the apparent favorable result was secondary to rotation, since combat status gave increased credits toward this goal. However, many observers received a distinct impression that a great number of the individuals concerned more or less welcomed an opportunity to regain the self-esteem that had been lost since their removal from the combat group.

The frequent changes of division psychiatrists in the Korean campaign, due to various types of rotation, crystallized another basic principle of combat psychiatry that was noted in both World War I and World War II. This concerned the emotional reactions and attitude of the psychiatrist who deals actively with acute psychiatric casualties. It had been previously observed that the insecurity of psychiatrists in the handling of patients noticeably lessened as they moved from a rear assignment to one in the combat zone. Moreover, with continued work in forward areas there was even further increased efficiency in their management and treatment of psychiatric cases. Part of this improvement undoubtedly stems from the practical experience obtained and a greater knowledge of the combat situation, which make for increased skill in discriminating between disabling symptoms and mere complaints. However, many of the young psychiatrists strongly felt that the greater security that followed continued function in the forward zone was due to an alteration of their attitude toward patients. Most newcomers to combat psychiatry and those psychiatrists who operate in rear areas are prone to identify with the needs and wishes of the patient. They were therefore readily made insecure when deciding that a patient was fit for return to combat duty, even though aware from a technical and intellectual standpoint that such a decision was correct. Because of anxiety from overidentification and from conscious feelings of guilt for the seeming responsibility of sending a patient to hazardous duty, the psychiatrist vacillated in his clinical judgment, thus impairing his usefulness. But as he worked in the combat zone, observed men who adjusted to battle situations, noted the usual discomforts of combat participants, and decreased his own feelings of guilt by participation, an inevitable emotional reorientation occurred, namely, the division psychiatrist became identified with the welfare of the group rather than the wishes of the individual. With this change the psychiatrist lost anxiety and guilt when making decisions because he became convinced that it is for the best interest of the individual to rejoin his combat unit, for in no other way can the patient regain confidence and mastery of the situation and prevent chronic tension and guilt. This attitude of the division psychiatrist, stemming from participation with the combat group, makes it possible for him to assume the traditional role as an exponent of reality which insists that the individual continue functioning despite anxiety rather

than allowing withdrawal or a disabling neurotic compromise. This attitude of the psychiatrist has a far-reaching effect for it is communicated to both medical and line officers of the division and serves to dispel the mysticism and high values for helplessness caused by psychiatric symptoms.

Summary

Effective techniques of combat psychotherapy have been evolved through experiences gained in World War I, World War II, and the Korean campaign. They include the following basic principles: (1) the location or level where treatment is performed should be as near the battlefront or combat group as practicable, preferably at the level of the battalion aid station; (2) best results of treatment are obtained by methods that combine simplicity and brevity; repression and suppressive techniques are more effective than uncovering procedures; (3) psychiatric facilities function more effectively if all assigned personnel make consistent efforts to create a therapeutic atmosphere that reflects positive motivation; (4) success in therapy is largely determined by the degree with which the psychiatrist identifies with the needs of the combat group, as opposed to his participation with the desires of the individual.

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HOME BY SHIP: REACTION PATTERNS OF AMERICAN PRISONERS OF WAR REPATRIATED FROM NORTH KOREA[1]

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INTRODUCTION

American repatriates, while in enemy hands during the recent Korean conflict, were subjected to a combination of emotional pressures unique in the recorded history of our prisoners of war. In addition to the stresses of grossly inadequate food and shelter, physical abuse, close confinement, limited emotional outlets, and uncertainty about the future, described in reports from World War II(1, 2, 3, 4), they were exposed to a large-scale, carefully organized, and coercive program of political indoctrination, which added a disturbing new dimension to the prisoner-of-war experience.

During Operation "Little Switch" in April, 1953, military psychiatrists were impressed by the degree of emotional isolation and apathy present in most of the returnees, the first to be recovered from enemy camps. It was therefore recommended that the armed forces provide some opportunity for reorientation and beginning readjustment for the larger group of later repatriates prior to their return to their homes. It was subsequently arranged to transport all "Big Switch" repatriates (August-September, 1953) back to the United States by ship, rather than by air, affording each man a minimal 15-day sea voyage before being confronted with the demands of his future life. The hypothesis was that, by means of this "interlude," the men could more effectively integrate the realities of repatriation and bridge the emotional gap between prison camp and home town. To aid in this process, army, air force, and navy psychiatrists were assigned to the ships to serve as members of medical processing teams, enabling each repatriate to be individually interviewed for diagnostic, therapeutic, and investigative purposes. About one-third of these interviews took place at Inchon, the Korean port of embarkation, and the remainder on shipboard. In addition, a limited number of group therapy sessions were conducted during the latter days of the voyages. Other required medical and administrative processing was also accomplished on these ships.

As one of the 4 psychiatrists assigned to the USS "General Pope," the author interviewed 90 repatriates and conducted 12 hours of group therapy sessions during the voyage. The "Pope," a merchant marine troop ship carrying 442 repatriates and a larger contingent of regular rotating military personnel, left Inchon on August 26, and docked in San Francisco on September 9, 1953. The repatriates aboard were all enlisted men, most of them having been privates and privates first class at the time of their capture. They were a young group, averaging less than 25 years of age, and of a generally limited educational background. The majority had been prisoners of war for more than 2 years, and many had been captured during the early days of the war, spending as long as 37 months in enemy hands. They had been repatriated from many different enlisted men's camps in North Korea, and had boarded the ship between 1 and 3 days after leaving Communist captivity. Thus, all of the returning prisoners of war on the "General Pope" reached San Francisco between 16 and 19 days after their release. In their previous backgrounds, prison camp exposures, and reaction patterns, they may be considered a "typical" group of repatriated American enlisted men.

Before the ship's departure, the author also had the opportunity to observe returning prisoners during their first moments of repatriation at the American Reception Center

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at Panmunjon, and during their initial brief medical processing at Freedom Village, near Munsan-ni, less than an hour later; as well as to conduct 30 interviews in Inchon with men during their first 24 hours of freedom. In this manner, a comprehensive and sequential behavioral picture, from the moment of repatriation until disembarkation at San Francisco less than 3 weeks later, could be formulated.

Rather than being structured as a formal psychiatric report, this paper will focus on individual and group reaction patterns during this period of time, and attempt to interpret this "sea change" with reference to present and future adjustment problems. The types of stress to which these men were exposed, and their reactions during imprisonment, are complex and vitally important topics, each deserving a great deal of additional study. The brief material presented here on these subjects is considered to be the minimal information necessary for an adequate understanding of the subsequent post-repatriation reactions.

STRESSES AND REACTIONS DURING CONFINEMENT

The individual prisoner-of-war experience in members of this group had some variation, depending partially upon when and by whom a man was captured. But the average overall ordeal may be divided into 2 basic phases: the earlier period of marked physical deprivation and abuse, mostly at the hands of the North Koreans; and later exposure to the emotional stress of the Chinese Communist indoctrination program.

The men captured by the North Koreans during the first few weeks of the war, and held by them for periods as long as 16 months, underwent experiences strikingly similar to those of American prisoners of the Japanese during World War II(1, 2, 3). These included long, forced "death" marches, submarginal diet, exposure to freezing weather without adequate clothing or shelter, vicious beatings for minor or alleged transgressions, and the witnessing of the spectacle of fellow prisoners shot in cold blood. All suffered from malnutrition and dysentery, and in the absence of medical care, only the minority survived.

The men reacted initially with great anxiety and some belligerence, subsequently with depression and apathy, resembling the patterns described in Japanese-held prisoners (4). There were examples among them of both extremely altruistic behavior, as well as the most primitive forms of struggle for survival. There was considerable elaboration of fantasy, aided later on by the widespread smoking of hemp weed, which contains a marijuana-like derivative. Some form of emotional withdrawal was necessary to minimize the devastating qualities of the environment. As one repatriate said, "At first, when a buddy died, I'd get very upset and not talk to anyone for days. But after it happened so many times, I didn't seem to care—and I wouldn't feel anything."

By October, 1951, the Chinese Communist forces had taken over all United Nations prisoners of war. After many more men had died virtually unattended in their care, they gradually instituted better dietary, medical, and general living conditions. But with these physical improvements came an even greater emotional assault, a political program utilizing psychological techniques, aimed at achieving indoctrination and collaboration among the prisoners. The approach, already well documented(5, 6, 7, 8), has been termed "brain-washing," and can be broken down into 3 phases which were in constant simultaneous operation: isolation, thought control, and political conditioning.

The Chinese employed many different methods of emotionally isolating the individual prisoner. They removed his leadership by transferring all officers and higher-ranking noncommissioned officers to separate camps, and discouraged close personal bonds by offering material rewards for "informing" on one another. During an extensive program of lectures and discussions, they attempted to undermine previous emotional identifications, including those of family, religion, military unit, and country, always making available new ideals and potential gratifications to replace the old.

In the thought control aspects of their program, they extracted "petitions," "confessions," "self-criticisms," and pro-Communist articles and recordings, largely for their propaganda value, but also essential for the

purpose of acquiring and maintaining an increasing emotional and intellectual hold on their captives. They utilized numerous techniques to this end, varying them to suit the individual. These included thinly veiled threats of physical harm, nonrepatriation, or return to the previously experienced deprivations; "logical" persuasion; and stimulation of guilt feelings related to prior actions. Methods were relentless, frequently causing considerable physical and emotional discomfort, but with the men interviewed, the Chinese generally avoided resorting to actual bodily torture.

Political conditioning was carried out by lectures and group discussions, at first compulsory, but later in the form of "special study groups" for the "advanced students." These were characterized by the repetitious teachings of Communist principles and catchphrases, denunciation or exclusion of all opposing ideas, and the most arbitrary and authoritarian concepts of truth and error. Enforced idleness was maintained to encourage the reading of available literature, consisting essentially of Communist newspapers, periodicals, and texts, as well as novels critical of the American social and economic structure.

Throughout their program, the Chinese employed a "clinical" method of screening in which the most intensive pressures were applied to those who seemed initially most susceptible, a system of rewards and punishments for "cooperation" or resistance, and skillful manipulative methods to control group reactions.

The men exposed to this complex of pressures experienced a formidable challenge to their emotional integration. They were confronted with an inscrutable new authority, sometimes harsh and threatening, sometimes overtly friendly and almost kind; but never fully trustworthy, and constantly demanding acts and attitudes contrary to previously held loyalties and ethical concepts. They responded with feelings similar to those of the offspring of inconsistent, demanding parents: guilt, confusion, attempts at withdrawal, ambivalent hostilities, and an ever present conflict about how to behave. Most, in the euphemism of the camps, learned to "play it cool." This meant being cautious, inconspicuous, holding back strong feelings, not getting "on the wrong side" of the Chinese, "cooperating" a little where necessary, but avoiding major collaboration. They attempted to establish some point beyond which they would not go in their "cooperation" with the enemy. Those who were unable to successfully set these limits, because of their anxiety when attempting to defy authority, were likely to step over the rather indistinct line which separated "playing it cool" from more active collaboration. Anxiety and desire for material advantages appeared to be much more important determinants in producing collaboration than were strong political convictions. The relatively few who avoided cooperating with the enemy in any form generally did so with the aid of one of two factors, both of which have been described among survival factors in Japanese-held prisoners(1, 2): an unusually strong, ego-supportive sense of identity, or a lifelong characterological pattern of indiscriminate acting out against all authorities. Those who could firmly resist without undue belligerence frequently experienced relatively little pressure from the Chinese, who soon wrote them off as poor indoctrination prospects.

The Chinese were quick to express their evaluation of an individual's "cooperation" by the loosely applied labels of "progressive," (cooperative, therefore good), and "reactionary," (uncooperative, therefore bad). The prisoners themselves, with sometimes equally indiscriminate usage, readily picked up these terms, applying directly opposite moral connotations: a "progressive" was a "rat" and a traitor, while to be a "reactionary" was to wear a badge of honor. Around these terms, group identifications did develop, but they were often shifting and confused, and of limited emotional value.

POSTREPATRIATION BEHAVIOR PATTERNS

When observed stepping down from the Chinese trucks at the American Reception Center, during the first moments of repatriation, most of the returning prisoners appeared to be a little confused, and surprisingly unenthusiastic about being back. During psychiatric interviews at Inchon just a

few hours later, they presented striking consistencies in their clinical pictures. The average repatriate was dazed, lacked spontaneity, spoke in a dull, monotonous tone with markedly diminished affectivity. At the same time he was tense, restless, clearly suspicious of his new surroundings. He had difficulty dealing with his feelings, was particularly defensive in discussing his prison camp behavior and attitudes. His guilt was marked, and related to all phases of his experience: capture itself, survival in the face of friends' deaths, primitive behavior during confinement, and most important, any cooperation, no matter how inconsequential, that he had offered the enemy. His feelings towards the Chinese were indistinct and ambivalent, and his mildly expressed statements could not seem to adequately convey the hostility which was within him. ("I don't like those people, running down our government and all that, but they did improve the chow when they took over our camp.") He had difficulty accepting the reality of his repatriation. ("It seemed just like a dream. I'm still not sure it really happened.") Although relieved at being back in American hands, he was in no hurry to get home. ("There's no rush now that I'm back on this side of the line. I'd like to take a trip to Japan for a couple of weeks.")

A group of these sluggish, constricted individuals boarded the "General Pope," where they lived apart from other returning troops, with their own air conditioned dormitories, mess, and recreation facilities. They were offered such special treatment as having their bunks made up for them by other shipboard personnel, an arrangement which many enjoyed, but others found objectionable because "it makes us feel like helpless babies." Their general demeanor was markedly restrained and phlegmatic, except for a few initial "incidents." Almost immediately after boarding the ship, several alleged "progressives" received threatening notes from other repatriates, and on one occasion a brief fist fight occurred. Following this, a group of "progressives" requested protection, were subsequently placed in a separate compartment, and no additional disturbances took place.

The men were kept busy during most of the trip with the requirements of medical and administrative processing. During their free hours, they congregated among themselves in small subdued groups. Although free to mix with rotating troops on the decks, they had little to do with other personnel aboard. Many seemed to form close attachments from within the prisoner-of-war group, and there was an increasing tendency during the course of the voyage for them to speak in terms of "we" and "us," and to make ready reference to the entire shipboard repatriate population in discussing any type of attitude or opinion.

After a few days at sea, a gradual, although definite change began to take place in their behavior. They became increasingly reactive, but in a generally belligerent, irritable, and critical fashion. Where they had previously expressed little but praise for the treatment they had received since their repatriation, they now began to complain petulantly to both psychiatrists and compartment commanders about the facilities on the ship, the frequent inspections, or their dissatisfaction with some aspect of future travel arrangements. They were also, during psychiatric sessions, much more direct in expressing their hostilities. Concerning such matters as their feelings towards the Chinese, they would now say, "I hate those people more than anyone I've ever known. They treated us lousy and fed us a pack of lies." As one of the men summed it up, "I don't know why—but the guys seem to all be getting sort of jumpy—kind of fed up with things."

At the time of the climactic arrival in San Francisco, they again behaved with great emotional reserve, and there were few outbursts among them as the "General Pope" glided under the Golden Gate. During the dramatic debarkation scene, observers were extremely moved by the sight of mothers literally reaching up to the ship for their sons. In marked contrast was the blandness and lack of outward emotion displayed by the repatriate group.

GROUP THERAPY EXPERIENCE

It was in the group therapy session conducted on the ship that the men seemed best able to bring out the fears associated with their return. The limited time and personnel available, with the tremendous number of individual interviews to accomplish, permitted only a small percentage of repatriates to par-

ticipate. These were selected from among the long-term prisoners (more than 24 months) who, in their individual interviews, demonstrated particular need for help, although it was felt that all could have benefited from group sessions. Eight groups were formed on the "General Pope," most of which met twice, and none more than 3 times. Each group contained 6 to 8 men, limited by the size of available compartments, with meetings lasting 60 to 90 minutes. Six of the groups were formed without particular design, the only precaution being the exclusion of the most active collaborators, as it was felt that their presence might engender sufficient hostility in the others to impair group progress. The remaining 2 were experimentally constructed, 1 consisting exclusively of individuals who had actively collaborated with the enemy and were considered by the other men to be "progressives"; and the other of men who had most aggressively resisted collaboration in any form, the "arch reactionaries." Both of these special groups and 2 of the random groups were organized and led by the author.

During the sessions, the general reticence of the men required that the therapist take an active role in initiating discussion. The focus was kept, by mutual consent, on attitudes and fears related to the present and future. The men seemed unable to deal in groups with the disturbing and guilt-laden aspects of their prison camp experiences, which they had already begun to repress. Most of them approached the group situation with considerable suspicion and apprehension, participating tersely and sporadically. There was surprisingly little of the fantasied overglorification of home that had been expected, and an increasing ability to deal with reality fears. But their productions clearly reflected the tremendous feelings of isolation, inability to communicate, and anxiety about the future, that all experienced.

They recognized their difficulty in relating to "outsiders," in their contacts with other personnel on the ship, their first nonrepatriate social exposure: "I can talk for hours with one of the fellows who was 'up there,' but I've nothing to say to those other guys." Or, in projected form: "Those rotation troops act peculiar to us. They don't talk to us."

They experienced similar fears in anticipating relations with family and friends: "I don't think I'll be able to talk to the folks back home. I can't seem to make conversation any more. . . . They won't believe what we say back home anyhow. It's too fantastic. . . . They'll try to get us to talk about our prisoner-of-war experiences. If they do it to me, I'll just walk away. . . . They'll treat us like some kind of fragile packages."

They perceived homecoming itself, as a particularly threatening experience, and the prospective fanfare stimulated their feelings of guilt and unworthiness: "That first week is really going to be rough—big parties with relatives and all that. It makes me feel funny because I know I don't deserve it. . . . I sure hope they don't make a lot of fuss over me. I'd rather be just left alone, maybe take a fishing trip for a few days."

They emphasized their unique forms of prison camp communication, which the rest of the world could not be expected to understand: "We spoke our own language up there—kind of a mixture of American 'bebop,' Korean, Chinese, and Japanese, and lots of four-letter words. . . . We acted kind of crazy, like imitating a dog or a railroad train. You had to, to keep your spirits up. But back home, folks might think we're peculiar." They extended this to reflect their fears about their own hostilities: "I'm afraid that when I start talking I may hurt people. Those curse words have a habit of coming out at the wrong time."

All of the men felt left behind and out of things: "We're not familiar with things back home anymore. We have a lot of catching up to do. . . . I've never even seen television. . . . I don't even know where our new house is." The dangers of this unknown world were vividly expressed: "I don't know my way around at all. Hell, I could step off a street car and get killed."

Their dependency needs, which had been intensified during their long period of closely regimented existence, were prominent, frequently expressed in the form of denial, and with reference to earlier conflicts: "I sure hope they don't try to baby me up when I get home. I can see Mother now, telling me what to eat, where to go. I'd like to do what I want and be completely on my own. . . . I'd like to go into business with a buddy, but

I think I'll stay in the Army for a while, just until I kind of get used to things."

Their guarded statements about Communism contained elements of fear, guilt, and hostility; and the feeling that they were still vulnerable, and not quite out of the grasp of their former captors: "What should I do if the Communists send agents to my house? I'd like to tear them apart, but maybe it would be better to call the F.B.I. . . . People back home may think I'm a 'progressive' or a Communist. If they accuse me of that, I'll sock them in the nose."

The suspicious and self-imposed aspects of their isolation were dramatically expressed in a poem, brought to a group session by one of the repatriates in order to demonstrate to the therapist "how the men feel about things." It had been jointly composed by 3 prisoners, in one of the camps, anticipating their homecoming:

I know you are curious about my life in this strange land
As a prisoner of war in Korea, *but how could you understand?*

You ask about the treatment, was it good or was it bad?
I answer, it's all over now and I am very glad.

You ask if I was captured, if I was wounded too,
Yes, I was badly wounded, but *what does that mean to you?*

I realize your idle interest, curiosity and wonder too,
But even if I tried, *I couldn't explain all this to you.*

I hope this answers your questions, please forget you ever knew
That I was ever a prisoner, for I want to forget it too.[3]

The reactions of the two specially constructed groups were of particular interest, and at variance with those of the random groups. The "arch reactionaries," many of whom were individuals with significant antisocial tendencies, greeted the therapist with a stony, hostile silence, maintaining a martyred attitude in the minimal participation that could be elicited. One of the men lucidly expressed the feelings of the group when he said to the therapist in a rather condescending fashion, "I'll tell you, Doc, we went through a lot up there. And nobody could really understand the way we look at things unless he was up there with us." The group met only once, because of several requests from its members that they not be compelled to attend another session.

The group of "progressives," in direct contrast, participated actively and achieved considerable catharsis during their 2 sessions. Although they talked primarily of future problems, they were the only group that felt the necessity to make numerous references to their prisoner-of-war experiences. They did this in general terms only, describing the pressures to which a man was subjected, and bringing out a great deal of hostility towards the Chinese because of "what they made a man go through." Throughout the sessions, they seemed anxious to please the therapist, and to justify, in his eyes, their prison camp behavior. Their strong residual guilt was a stimulus towards participation, and most of them welcomed both group therapy meetings and intelligence interviews as "a chance to get some of that stuff off my mind." It is important to point out here that none of these men, or of the others interviewed, had been as well indoctrinated as some of the earlier "Little Switch" repatriates(9).

Discussion

The emotional construction characteristic of most of the men just after their release may be considered a modified and incomplete form of apathy. It reflected, as it did in the case of World War II prisoners of the Japanese, retreat from a disturbing, unsatisfying environment(1, 2, 3, 4). Thus, the Korean War repatriate's "playing it cool" was reminiscent of the World War II prisoner who "just put my mind in neutral"(3). The recent group, however was dealing with an indoctrination program that constantly exerted pressure in the direction of participation, rather than withdrawal. Consequently the apathy which developed could never be as complete or "successful" a defense as it was for Greenson's World War II returnees(4), and was complicated by the anxiety and guilt which the men invariably experienced in response to the behavioral tightrope they were walking.

The transition from apathy to hostility in these men was undoubtedly, as Greenson pointed out in his group, a favorable sign, part of the process of "saying hello bit by bit to the world." It also was a kind of verbal muscle flexing, an attempt by the men to

[3] Italics mine.

again assert themselves, after the humiliation and impotence experienced during imprisonment. It had, however, more ominous aspects, including a mounting apprehension about homecoming, and the resurgence of previously repressed hostility, which would be difficult for many of the men to handle in the future.

The 3 types of group therapy reactions actually recapitulated the prison camp behavior. The members of the randomly selected groups, in their cautious, irregular responses, were in effect, "playing it cool." The "arch reactionaries," were utilizing the attitude of hostile resistance which for them had become a way of life. And the "progressives," albeit for not entirely the same reasons, in their active participation, were again "cooperating." In each group the men had become sufficiently conditioned that their prison camp responses persisted, even in this new situation. This also suggests that the original reactions to the Chinese indoctrination program were significantly influenced by previously existing response patterns to authority, which became again operative on the ship, particularly in the presence of the therapist. This is an area for fruitful additional study.

The sequence of group identifications among the repatriates is of particular importance for an appreciation of the adjustment problems which they face. Most of the men were captured relatively early in the conflict, and within a short time after their arrival in Korea. They did not have sufficient opportunity to fully integrate themselves into their new assignments or develop the essential, supportive emotional ties which evolve in the experienced, smoothly functioning combat unit. Indeed, they were still in the converse position of struggling with the feelings of emotional isolation which characterize the military transfer or "pipeline" status. This, in itself, particularly in anticipation of combat, can produce symptoms of apathy and depression, sometimes termed the "pipeline syndrome."

The act of being captured, the strangeness of the prisoner-of-war situation, and movement from camp to camp in frequently shifting groups, kept the men in perpetual "pipeline" status until a more physically stable situation developed under the Chinese in the fall of 1951. And at this point they were exposed to a program specifically directed at further severing their lines of emotional communication. They were men without leaders, in an atmosphere of fear and suspicion, differing from one another in their attitudes and responses to the ordeal. Their captors were careful to avoid the type of direct brutality or hostility which, by stimulating strong group resentments, can act as a cohesive force(1, 10). Even in these circumstances, group ties of varying effectiveness did emerge, but rarely of sufficient strength to overcome the individual isolation which prevailed.

When repatriated and en route to the United States, the men were once more in an emotionally floating or "pipeline" status. They were no longer under the control of an alien authority whose teachings had been more confusing than convincing, and not yet able to draw upon the background ties which were both far away and a bit shaken by the verbal attacks of the Chinese. But they were a group of men who had all undergone a complex and disturbing ordeal, from which in retrospect they could call forth many common feelings and attitudes. They also shared residual scars and similar apprehensions about homecoming. They could experience among themselves a degree of empathy and communication impossible to achieve with those who had not been "up there" with them. Their common identity as repatriated American prisoners of war was the only strong, here-and-now group tie available to fill the emotional vacuum which had been created in them. In the absence of prison camp impediments, this identity developed with great intensity, offering, in its broad aspects a sense of belonging, and in its immediate shipboard manifestations, a means of re-establishing interpersonal relationships from within the group.

Despite the value of this identity, it had the drawback of being both clannish and fearful. It lacked the power-giving qualities of the group attachment which says, "Mine is the best damned outfit in the Army. With my buddies behind me I have nothing to fear." It conveyed more the feeling of, "We repatriates against the rest of the world . . . if you were up there with me, you can be my buddy. If not, I must fear and distrust you."

It also had strong cleavages and innumerable shadings of intragroup hostilities, resulting from many divergent factors. For example, when a "reactionary" threatened a "progressive" with physical harm, he was expressing long-smouldering resentment concerning the latter's having obtained material advantages at others' expense, and by less-than-honorable means. He was also reacting to the sudden power reversal that had occurred, in which his adversary was no longer allied with the dominant force, and his own position was now the stronger. And, in addition, by this aggressive act, he could forcefully deny guilt-producing tendencies towards collaboration which he could unconsciously perceive in himself. This last factor had a great deal to do with the group ostracism to which the "progressives" were exposed following repatriation.

Thus, patterns of defensive isolation dominated all levels of the prisoner-of-war identification, including those of the individual, of the behavioral categories, ("progressives" and "reactionaries") and, most important, of the entire prisoner-of-war group itself towards the rest of the world. This will undoubtedly influence the future adjustment problems the repatriates will encounter. Untoward reactions are likely to take the form of confused identifications, paranoid syndromes, and in a behavioral sense, nonparticipation in future military and civilian communities. This could be expressed by means of either fearful withdrawal or belligerent negation, with antisocial overtones. The more complex and confusing pressures to which the men were subjected may make these problems more marked in this group than in World War II repatriates, in whom somewhat similar reactions have been noted(11). The reluctance with which many of the men left the group to return to their homes suggests that an exaggerated prisoner-of-war identification will again be utilized as a buffer and rationalization for all adjustment problems. A man who is unable to feel that he is part of his community is likely to demonstrate more enthusiasm for his prisoner-of-war meetings and reunions than for other social and occupational interests.

The delayed homecoming, with the opportunity to live together and form these strong group ties, was nonetheless of definite value. In addition to much needed interim support, it offered the men a necessary working through period, both for reality testing and a protective form of initial social exposure to "outsiders." The repatriates underwent an over-all group therapeutic process, far beyond the influence of the formal psychiatric program, which could only have a limited, catalytic effect. A longer "interlude" accompanied by the more extensive utilization of group therapy sessions could have probably resulted in even greater emotional benefits.

Summary

The reaction patterns of a group of American prisoners of the Korean conflict, in response to their uniquely traumatizing experience, have been described. These were correlated with the sequence of behavior between repatriation and arrival in San Francisco 16 to 19 days later, determined by means of individual interviews, shipboard observations, and group therapy sessions conducted during the voyage. Shifting patterns of individual and group defenses and identifications were discussed, with reference to underlying dynamics and relationships to future adjustment problems.

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AIR TRANSPORTATION OF PSYCHIATRIC PATIENTS

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Large-scale use of the airplane to transport the sick and wounded began about 10 years ago. It is now the standard method employed by the armed forces of the United States. Proven beyond question are its advantages in economy, conservation of manpower, and better patient care.

Today there is a consensus of authoritative opinion that any patient who is in condition to be transported by any means, can advantageously be transported by air, provided: (1) that patients are properly prepared for flight; (2) that adequate equipment is available for care during flight; and (3) that properly trained personnel are aboard the plane to provide medical and nursing care.

Studies concerning the effects of air transportation (*e.g.*, the effects of flying on pathological conditions) on patients have been relatively few. Tillisch, Stotler, and Lovelace(1) in 1943 reported observations on 200 patients transported by air. The USAF School of Aviation Medicine made a gross analysis of over 16,000 flights by patients which was reported at the 1950 scientific session of the American Medical Association (2).

In this day of specialization in medicine, it appeared appropriate to further analyze the 16,000 case reports and to present the findings for special categories of patients. The February 1952 issue of the *Annals of Internal Medicine*(3) carries an article on air transportation of cardiac and pulmonary cases based on a study of 1,777 of these case reports.

In the total group of 16,020 reports it was found that there were nearly 3,000 records on neuropsychiatric patients. This number was considered to be large and diversified enough to warrant a separate report.

Up to the present time almost nothing has been published in reference to the transportation of psychiatric patients by air. Tillisch (4), in 1948, devoted one paragraph to a brief consideration of the subject. He reported that epileptics will have convulsive seizures more frequently on a plane than under ordinary circumstances and that psychoneurotics have an increased susceptibility to motion sickness. He referred to the obvious difficulties in controlling psychotic patients on a plane.

Before the development of air evacuation, psychiatric patients in military service were transported by ship, rail, or automobile, 1 or 2 cases at a time, with a doctor or nurse or both and, in disturbed cases, 1 or 2 attendants in addition. A trip by rail from the east to the west coast would require about 4 days and the attending personnel would have to be returned to the original point of departure, all at considerable expenditure of time, manpower, and money. Civil institutions are still using such uneconomical methods almost exclusively, and although the over-all number of patients transported is probably not very great, elaborate arrangements are generally required for each case.

There are many reasons for having to transport psychiatric patients. In civil life, the family may wish to make the change for economical, medical, or sentimental reasons. In other cases the hospital may recommend the transfer. State hospitals are constantly having emergency admissions which eventually must be returned to their state of legal residence. In the military medical system, new cases are constantly being seen initially in small dispensaries and must be moved to larger armed forces hospitals for diagnosis and treatment. If there is no improvement in a reasonable time and no likelihood of return to duty, the military organization must effect the separation of the patient from military service but is still responsible for transporting him to his home, to a state hospital, or to a facility of the Veterans Administration.

At first the idea of transporting psychotics by air was approached with much trepidation. The unpredictables were of common knowledge and no special techniques for management had been designed. During World War II the decision to transport psychiatric cases by aircraft was dictated by circumstances and the operating personnel, aeronautical and

medical, adapted to this necessity. Certain workable routines grew out of their experience, resulting in a system of classification of patients which is still in use. All patients are placed in 1 of 4 classes as follows:

Class I.—All psychiatric or mental patients.

Class II.—All litter patients (nonambulatory) except psychiatric.

Class III.—All ambulatory patients (except psychiatric), requiring some hospital, nursing, or medical care enroute.

Class IV.—All ambulatory or administrative patients (except psychiatric) with minor disabilities, requiring no nursing or medical care enroute ("Troop Class").

The psychiatric group or Class I is further divided into 3 sub-groups.

Class I-A.—(Severe psychotic). Locked ward psychiatric patients requiring use of restraint apparatus; includes all disturbed psychiatric patients; requires special watch aboard aircraft and at intermediate stops; sedated, restrained, clothed in pajamas, and delivered to aircraft on a litter. These are actively psychotic and disturbed, or potentially disturbed patients including suicidal, homicidal, combative, and grossly deluded and hallucinated cases. They are considered as potential seclusion room patients in a hospital and must be placed on closed wards during overnight stops enroute.

Class I-B.—(Locked ward psychiatric). Locked ward psychiatric patients normally not requiring use of restraint apparatus; require special watch aboard aircraft and at intermediate stops; sedated, clothed in pajamas, and delivered to aircraft on a litter. Included in this class are patients who are psychotic to a minor degree or clearly convalescent, not disturbed and not likely to become so. These patients may be suitable for open wards at the originating and destination hospitals, but for complete security must be kept on closed wards during all stops enroute.

Class I-C.—Psychoneurotic cases and others without gross disturbances of behavior. These patients in most instances have a record of causing no trouble at the originating hospital and can be expected to be cooperative and quiet during the flight. Restraint and sedation are not necessary. They are open ward cases and are usually ambulatory.

Limitations on the numbers of psychiatric patients carried on any one flight have been established by the Military Air Transport Service. The limitations have been stated at various times both in percentages and in actual numbers. At the time when this study was being made, no more than 10 psychiatric patients classified I-A or I-B or any combination of the 2 could be carried on a given flight. In addition, not more than 10 patients in Class I-C were carried aboard the same aircraft. Since aircraft capacity varied between 18 and 44 patients, it can be seen that a given flight was rarely if ever composed of psychiatric patients only. Today, on the larger hospital airplanes, with 60- to 80-patient capacity, many flights include up to 40% psychiatric patients.

At the outset in military air evacuation a system of screening was necessary before any particular patient could be accepted for air transportation. Two things had to be decided: were there any contraindications to air travel and were any special considerations required prior to and during the course of flight? Present-day criteria for transportability of patients by air are as follows:

(1) Patients not normally acceptable are: (a) those in infectious stages of a quarantinable disease; (b) moribund or semimoribund cases unless flight is a life-saving effort; (c) patients with permanent tie-wires between the jaws.

(2) Patients requiring special consideration are: (a) those with conditions involving cardiac failures; (b) severe anemias; (c) respiratory embarrassment; or with (d) conditions in which quantities of gas are confined in body cavities such as pneumothorax or ileus.

It should be noted that psychiatric patients are not listed under either special category. Transportation by air of these patients has become so routine that they are not even listed as requiring special consideration.

Procedure

During the latter months of 1948, and throughout 1949 and early 1950, a supplementary report on all patients was completed by the flight nurse on air evacuation flights performed by the Military Air Transport Service. Reports were obtained on 16,020

patient-flights. Of that total, reports on 2,879 patient-flights showed neuropsychiatric diagnoses. It should be made clear that these numbers refer to "patient-flights" rather than to the actual number of different patients. Thus, when a patient was transported from Japan to Washington, D. C. he might have as many as 2 or 3 separate flight records made out, one for each major "leg" of the trip. The 2,879 reports included approximately 2,100 different patients.

The report form listed diagnoses, symptoms occurring during flight, weather conditions, treatment necessary during flight, and other information descriptive of medical aspects of the trip. For purposes of this presentation, the symptoms noted during flight have been separated and attributed to either physical or psychological factors. Symptoms commonly caused by motion sickness, effects of altitude, effects of medication, etc., were classified as physical or somatic. The checking by the flight nurse of items such as pallor, sweating, cyanosis, nausea, vomiting, earache, etc., can obviously be considered as belonging to the somatic group. On the other hand, symptoms such as distinct apprehension, nervousness, disturbed behavior, or combativeness were considered to fall logically into the mental or psychological group.

Results

On this basis, the 2,879 case reports were analyzed after being separated according to diagnostic categories. Among this grand total shown in Table 1, there were 2,575 or 89.4% without symptoms during flight. The 4.5% with somatic symptoms is within the range of normal expectancy since well individuals travelling by air are reported to have from 2 to 5% incidence of somatic symptoms during flight, usually motion sickness. The total percentage of mental or psychological symptoms was 5.7%, and the majority were due to disturbed behavior or combativeness on the part of patients with major psychoses. The listing of combinations of somatic and mental symptoms is shown merely for the sake of completeness.

Since the psychotics showed the highest incidence of symptoms among the 3 major groups, it is interesting to show the breakdown of symptomatology according to the various diagnostic categories of psychotic reactions. In Table 2 can be seen the preponderance of the diagnosis of schizophrenic reaction (about 4/5 of the psychotic group), not unexpected considering the age group and other factors. The schizophrenic cases included 89% with no symptoms, 3% with somatic symptoms, and almost 8% with psychological symptoms. The affective cases closely paralleled the schizophrenic cases in symptoms recorded.

To take the largest group among the psychotic reactions, there is shown next (Table 3) the breakdown of the various subtypes of schizophrenic reactions. The simple type showed 90% with no symptoms. To the schizophrenic group these patients would be expected to show little disturbance. The hebephrenic group, small in total numbers, shows the highest incidence of severe psychological symptoms. This is entirely in line with what

TABLE 1

All Neuropsychiatric Reports

Case reports	Major diagnostic category	No symptoms	Symptoms attributable to physical factors	Mental or psychological symptoms: Minimal	Mental or psychological symptoms: Appreciable	Combination of physical and mental symptoms
1389	Psychoses	1218	50	18	98	5
	48% of total	87.7%	3.6%	1.3%	7%	0.3%
796	Psychoneuroses	734	32	12	13	5
	28% of total	92.2%	4%	1.5%	1.6%	0.7%
694	Psychopathic states and miscellaneous.	623	48	15	7	1
	24% of total	89.8%	7%	2%	1%	0.2%
2879	Grand total	2575	130	45	118	11
		89.4%	4.5%	1.6%	4.1%	0.4%
				163		
				5.7%		

TABLE 2

THE PSYCHOSES

Case reports	Diagnosis	No symptoms	Symptoms attributable to physical factors	Mental or psychological symptoms: Minimal	Mental or psychological symptoms: Appreciable	Combination of physical and mental symptoms
1133	Schizophrenic reactions	1003	38	11	77	4
		89%	3%	1%	6.7%	0.3%
129	Affective reactions	112	5	2	9	1
		87%	4%	1%	7%	1%
42	Paranoid reactions	36	3	1	2	..
		86%	7%	2%	5%	..
24	Organic psychotic reactions	16	2	2	4	..
		67%	8%	8%	17%	..
61	Psychotic reactions (not otherwise classified)	51	2	2	6	..
		84%	3%	3%	10%	..
1389	Total psychoses	1218	50	18	98	5
		87.7%	3.6%	1.3%	7%	0.4%
				116		
				8.3%		

TABLE 3

SCHIZOPHRENIC REACTIONS

Case reports	Diagnosis	No symptoms	Symptoms attributable to physical factors	Mental or psychological symptoms: Minimal	Mental or psychological symptoms: Appreciable	Combination of physical and mental symptoms
51	Schizophrenic reaction, simple	46	4	..	1	..
		90%	7%	..	2%	..
21	Schizophrenic reaction, hebephrenic	13	2	1	5	..
		62%	9%	5%	24%	..
43	Schizophrenic reaction, catatonic	35	2	..	5	1
		81%	5%	..	12%	2%
261	Schizophrenic reaction, paranoid	223	8	6	24	..
		86%	3%	2%	9%	..
37	Schizophrenic reaction, latent	33	3	..	1	..
		89%	8%	..	3% (Dist)	..
7	Schizophrenic reaction, mixed type	7	..	..	..	..
		100%	..	..	..	..
713	Schizophrenic reaction (not otherwise classified)	646	19	4	41	3
		91%	2%	0.5%	6%	0.5%
1133	Total schizophrenic reactions	1003	38	11	77	4
		88.5%	3.3%	1%	6.8%	0.4%
				88		
				7.8%		

would be expected from a knowledge of their clinical behavior. The catatonic group includes 12% with appreciable psychological symptoms; they too would be expected to show disturbed behavior more than any other subgroup except the hebephrenic. The largest subgroup, listed as "schizophrenic reaction not otherwise classified," could be expected to consist of subtypes in proportions roughly paralleling the percentage of simple, hebephrenic, catatonic, and paranoid types.

Table 4 shows the psychoneurotic group. The largest category is that of anxiety reactions constituting almost half of the total group, and of these 5% had symptoms classified as somatic although actually many of these symptoms may well have had some basis in psychological anxiety. The obses-

TABLE 4

THE PSYCHONEUROSES

Case reports	Diagnosis	No symptoms	Symptoms attributable to physical factors	Mental or psychological symptoms: Minimal	Mental or psychological symptoms: Appreciable	Combination of physical and mental symptoms
360	Anxiety reaction	323	17	7	8	5
		90%	5%	2%	2%	1%
42	Dissociative reaction	37	3	..	2	..
		88%	7%	..	5%	..
108	Conversion reaction	99	6	2	1 *	..
		92%	5%	2%	1%	..
11	Obsessive compulsive reaction	11	..	..	..	..
		100%	..	..	..	..
151	Neurotic depressive reaction	147	1	1	2	..
		97%	1%	1%	1%	..
8	Hypochondriacal reaction	8	..	..	..	..
		100%	..	..	..	..
70	Somatization reaction	64	5	1	..	..
		92%	7%	1%	..	..
46	Psychoneurotic reactions (not otherwise classified)	45	..	1	..	..
		98%	..	2%	..	..
796	Total psychoneuroses	734	32	12	13	5
		92.2%	4.0%	1.5%	1.6%	0.7%
				25 (3.1%)		

* Convulsive seizure during flight.

sive-compulsive, neurotic depressive, hypochondriacal, and "not otherwise classified" psychoneurotic reactions were almost completely free of any symptoms. The 70 cases of somatization reactions, composed mainly of psychogenic cardiovascular and gastrointestinal reactions, show 7% somatic symptoms and a very small incidence of minimal psychological symptoms. Such a distribution might be expected from a knowledge of the dynamics of these conditions. The over-all incidence of symptoms in the psychoneurotic group was almost 8%, about evenly divided between somatic and psychological.

Table 5 shows similar breakdowns for the balance of the cases. The first 5 listings fall into the group of character and behavior disorders. It is interesting to note that the first two (pathological personality and immaturity reaction) show a relatively large incidence of somatic symptoms; it is well known that these patients are often more prone to complain of minor body sensations that the average healthy individual. The diagnosis of acute situational maladjustment is listed on 109 records, with 7% showing somatic and 7% showing minimal psychological symptoms. Since this diagnosis itself is something of a catch-all for borderline cases and for those in which a final diagnosis is still uncertain, no conclusions are possible. A total of 134 patients were transported with a diagnosis of psychiatric observation and of course would be ultimately classified into some other group. The last group is too miscellaneous to permit objective discussion.

DISCUSSION

Certain observations based on this study are warranted. It was observed that hebephrenic and catatonic schizophrenics are more prone to show disturbed and combative behavior during transportation than any other group. The findings tend to disprove the general impression that psychoneurotics are more susceptible to motion sickness than the average person. As only 8 proven epileptics were transported, an opinion cannot be advanced as to whether or not they are more prone to have convulsions during flight than at other times. From an analysis of these 2,879 flight records one is impressed by the fact that air transportation proved highly successful as a means of transferring psychiatric patients from one medical installation

TABLE 5

PSYCHOPATHIC STATES AND MISCELLANEOUS

Case reports	Diagnosis	No symptoms	Symptoms attributable to physical factors	Mental or psychological symptoms: Minimal	Mental or psychological symptoms: Appreciable	Combination of physical and mental symptoms
147	Pathological personality types.....	128	15	2	1	1
		87%	10%	1%	1%	1%
98	Immaturity reaction	84	10	3	1	..
		86%	10%	3%	1%	..
38	Alcoholism, chronic	35	3	..	..	..
		92%	8%	..	..	..
6	Drug addiction	5	..	..	1	..
		83%	..	..	17%	..
37	Character and behavior disorders (not otherwise classified)	36	..	1	..	..
		97%	..	3%	..	..
14	Mental deficiency	12	2	..	..	..
		86%	14%	..	..	..
109	Acute situational maladjustment.....	94	8	7	..	..
		86%	7%	7%	..	..
134	Psychiatric observation	129	3	1	1	..
		96%	2%	1%	1%	..
111	Neurological disorders, miscellaneous and unclassified	100	7	1	3	..
		90%	6%	1%	3%	..
694	Total psychopathic states and miscellaneous	623	48	15	7	1
		89.8%	7%	2%	1%	0.2%
				22		
				3%		

to another. In military operations during hostilities the problem increases in magnitude. For example, there were 2,805 cases of mental and nervous disorders transported from Korea and Japan to the United States in 78 weeks from June 1950 to January 1952, an average of 36 cases per week. Even with battle casualties, neuropsychiatric disease constituted almost 10% of the total.

The present author and colleagues have published a research project report (5) on the handling of psychiatric patients during transportation by air which analysed experimentally several techniques for their control and management during air transportation. These techniques are as follows:

1. Psychotherapy including the establishment and maintenance of rapport and all that goes along with direct personal supervision of individual cases by experienced physicians, nurses, and attendants.

2. Other forms of specific therapy including hydrotherapy, physical, occupational, and recreational therapy, and certain applications of electric shock therapy.

3. Segregation and seclusion.

4. Mechanical restraining devices.

5. Chemical sedation.

Obviously in a given case, one or more of these methods may be utilized when indicated. For example, in violently disturbed patients restraint and sedation both are sometimes indispensable.

At the present time we have gone about as far as is practicable in the way of psychotherapy and direct supervision during air transportation. Physicians are neither necessary nor available for routine air evacuation flights. Flight nurses and technicians are sufficiently trained and are constantly gaining in experience.

The specific physical therapies such as hydrotherapy, occupational therapy, etc., are inherently less applicable in air transportation than any of the other methods and need no further discussion.

Segregation of psychiatric patients in separate flights on special planes and with specialized nurses and attendants has not been found necessary although definite advantages

in such a system cannot be denied. At least the possibility would seem to merit further study. Seclusion rooms on aircraft are, of course, impracticable.

In view of the long-accepted teaching and practice of nonrestraint, every effort is made to avoid the use of mechanical restraints except when positively necessary to insure the security of the aircraft and of all personnel aboard during flight. The standard operating procedure at the present time is to use restraining devices only when other methods of control are inadequate. Rather, restraints are carried aboard the aircraft for emergency use; this is illustrated in the current regulation(6) which reads in part as follows:

Restraint. As a precautionary measure sufficient restraints will be carried aboard the aircraft by the medical crew for unrestrained Class 1-B and 1-C patients to insure that any emergency situation arising in flight, involving the patients, can be met.

Patients are not classified as I-A (severe psychotics requiring restraint) unless they are really disturbed and actually require restraint and sedation during the trip.

Among the 2,879 case reports in this study it is estimated that mechanical restraints were utilized during flight in fewer than 10% and it is emphasized that in these restraint was clearly indispensable.

As would be expected, the main clinical types requiring restraint were those included under schizophrenic reactions in the 2 largest categories shown in Table 3, namely, the paranoid subgroup and the "not otherwise classified" subgroup.

A detailed study was made of various mechanical restraining devices. Each would have some advantage over others in particular circumstances and for various intervals of time. Crude methods such as improvised handcuffs and knotted sheets might serve for strictly temporary management in extraordinary situations—for example when a patient suddenly becomes violent contrary to all predictions or where a patient breaks loose from apparently adequate restraints.

The standard method of restraint when necessary is the use of well-padded wrist and ankle cuffs made of leather; they attach to the litter on a sliding strap which provides for limited movement of the extremities. Various auxiliary devices such as harnesses have been designed not for routine but rather for emergency use. Some have been used in actual practice when patients became violent during flight. One of these is the system of web belting designed by Captain Kissel(7) for use in the Pacific area in 1943-1944 when all kinds of ready-made equipment were in short supply and where medical personnel at times had to rely on their own ingenuity and improvisations.

Other strap systems have proved to be extremely uncomfortable with seams and buckles causing trauma and also interfering in many ways with necessary nursing care enroute. The straight jacket or camisole has been used in rare cases. It is hot and uncomfortable and extremely active patients find it possible to escape. Another device that has been explored is a net enveloping the entire body; this would be carried on the aircraft for emergency use only. The net as presently designed prevents acess to the body of the patient without its removal.

During the course of the School of Aviation Medicine Research Project a number of experimental devices were studied. The theory was elaborated that, in line with modern concepts, the aim should be to "control or manage" the patient rather than bluntly to "restrain" him. The principle of controlling gross body movements at the points of maximum leverage (the shoulders, pelvis, and lower thighs) proved to have positive merits apart from merely avoiding rigid restraint of hands and feet. One of the devices so designed is worthy of special attention. It is a fairly simple leather harness passing around the thorax and over the shoulders. It conforms to another important principle of body restraint; namely, whatever system used should allow for some easy method of increasing or decreasing the extent of restraint. Also it should be rather easy to release the patient quickly in case of emergencies and it would not interfere with attachment of a parachute harness when necessary. There is a still later modification of this method which utilizes control straps for the lower thigh, thus eliminating the necessity for ankle cuffs.

An important consideration in all methods of mechanical restraint with patients on litters is that of the effects of G-forces from the impact of crash landings and the desirability

of rapid release of the patient in the event of emergency during air evacuation flights.

The possibility of applying restraints to an ambulatory or seated patient is also worthy of some consideration. Some patients could be transported in a camisole restraint and permitted to sit up and move about on the plane, at times a perfectly satisfactory arrangement. In certain civilian psychiatric hospitals a device called the "locked chair" has been used to permit disturbed patients to sit up for intervals through the day and to allow some freedom of the arms and legs. The locked-chair has a cross-piece which prevents the patient from standing up and moving around. This principle might be applicable when seats are available on the aircraft.

Sedation is of course used when indicated for many Class I-A and Class I-B patients during air transportation. However, the use of mechanical devices when absolutely necessary for restraint without concomitant sedation has a greater safety factor for the patient. All sedatives produce some changes in circulatory and respiratory physiology which during air transportaton are already subject to alterations resulting from altitude. The barbiturates are used most frequently because of convenience of administration but patients so sedated sometimes require oxygen during flight. Consequently, the use of paraldehyde has been recommended by many flight surgeons as first choice but it is extremely unpopular because of its strong taste and odor. Nevertheless, it remains in the opinion of many the safest drug so far as alterations of physiology are concerned. In an effort to overcome some of the objections to the common methods of administration of paraldehyde a disposable ampule with a rubber tube leading to a plastic nozzle which could be used for rectal administration was developed. This device was actually produced in prototype by a commercial drug company for purposes of research. Further testing will determine the feasibility of its standardization.

Summary and Conclusions

1. The literature pertaining to management of neuropsychiatric patients during transportation by air is reviewed.

2. Methods employed by the military services including standard operating procedures are presented.

3. Reactions to air transportation of approximately 2,100 different patients making 2,879 patient-flights are reported. Results indicate that neuropsychiatric patients can be advantageously and economically transported by air. Among the 2,879 reports studied, symptoms reported during flight were present in only 10.6%. No serious reactions occurred and no symptoms were reported that are considered to have untoward significance.

4. Summarized are the results of a USAF School of Aviation Medicine research report concerning handling of neuropsychiatric patients during air transportation.

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PSYCHIATRIC SCREENING IN THE ARMED FORCES[1]

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This paper is based on the author's experiences in the Psychiatric Screening Units at the United States Marine Corps Recruit Depot, Parris Island, South Carolina, and at the United States Naval Training Center, Great Lakes, Illinois. These units screen all in-coming recruits for the purpose of eliminating those unlikely to succeed in military life. These include mental defectives, psychotics, moderate-to-severe character disorders: the large group of so-called inadequate personality, and those neurotics who seem likely to decompensate under stress. The reasons for disqualifying all classes except the neurotics, and to some extent, the less severe character disorders are obvious; there is, however, considerable controversy regarding character disorders, and especially neurotics.

Psychiatric screening is necessary, but the limits of such a process demand clarification, and the internal structure of screening units requires modification. In order to emphasize the changes that will be proposed here, and in an attempt to give weight to my belief regarding the disposition of neurotic recruits and other borderline cases, I shall first describe the screening units of which I was a part.

Following their physical examinations, incoming recruits are sent to the Psychiatric Screening Unit. There they fill out a lengthy questionnaire designed to give information pointing to psychiatric and, to some degree, neurological disturbances. Psychiatrists or experienced psychologists devote 2 to 5 minutes for review of the questionnaire and interview of the recruit in this initial screening interview. If gross pathology is evident or there are suggestions of instability, this is recorded, and the individual is either sent to full duty or placed on a trial duty status. The 20-30%, who are placed on trial duty, are interviewed a second time 2 or 3 weeks after they have begun training. Of the approximately 25% who are seen for a second interview, roughly 5-10% are seen a third time. During periods of heavy induction or recruitment, a major portion of the day is used by the entire staff to conduct these 3 successive interviews. At their third screening interview, recruits bring a company commander's report of their performance with them. Company commanders may at any time refer a recruit for evaluation; and infirmary officers frequently detect psychiatric disturbances at sick call, and make referrals to the Psychiatric Unit. These referral cases are often men in whom no psychopathology was detected at the initial screening interview. The third screening interview, and those of cases seen on referral, may last 20 or 30 minutes, for at this time weightier decisions regarding the individual's military future are made. Because of the great amount of time spent conducting the initial and second interviews, these third interviews are often conducted under considerable pressure, in spite of the fact that it is here that the more important decisions are made. Those men deemed unsuitable for military service are admitted to an observation ward for more careful assessment and disposition. Of those admitted to the ward, 50-75% are returned to duty, but approximately 1½-2½% of the total incoming recruit population are finally discharged via the Psychiatric Unit.

The large majority of men considered for discharge are neurotics and less severe character disorders, including immature and inadequate personality. Most of these men have not performed well at duty and are poorly motivated. These are the borderline cases about whom decisions are hard to make, and often several trials at duty, the help of social histories, and much time are needed to arrive at accurate decisions. Psychotics, mental defectives, and severe character disorders constitute no problem insofar as disposition is concerned.

On the surface, such a screening unit seems to be a smoothly running and efficient organization. But is it, and what does it

[1] The opinions or assertions contained herein are the private ones of the writer and are not to be construed as official or reflecting the views of the Navy Department or the naval service at large.

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really accomplish? Are not many hours of valuable psychiatric time being misused? First of all, an obvious question is, why *hold* the initial screening interview, when at best only hunches are made regarding psychopathology and probable successful performance at duty? Elimination of this interview, in which the entire staff participates, would in turn eliminate seeing those 20-30% who are called back for a second interview. The time saved would be enormous, not to mention the wear and tear on the psychiatric team, for it is no easy task to see endless numbers of men. Judgments become blurred and eventually the entire process loses much of its even dubious meaning. Since military regulations provide that each new recruit shall have a trial at duty, men are rarely admitted for observation from their initial interview. Those few psychotics or severely disturbed individuals who simply cannot adjust to military life would soon be referred to the Psychiatric Unit by their company commander, hence they would not be missed if this initial screening interview were eliminated or the method of conducting it revised. Company officers never hesitate to refer men for evaluation because of poor performance or inability to learn, for these men constitute their greatest headache, and they are happy to be rid of them. Actually then, the initial and second screening interviews accomplish little that a referral system could not. Most significant, however, is that I seriously doubt that we are able to predict the future of individuals by brief psychiatric interviews. This agrees with the findings of Glass(1) who showed that combat effectiveness cannot be accurately predicted on the basis of a brief interview, and concluded further that histories, especially, are largely unreliable. The time gained by eliminating these 2 interviews could be used for the study of borderline cases sent in by referral. In those cases maladjusted to recruit training, if neurotic symptoms or pathological behavior is severe, decisions are usually easy to make; but even here, the final outcome is often other than expected, if time is available to work with the case and study it thoroughly. Recruits showing immaturity reactions often break down at the beginning of training, and it is all too easy to discharge them, particularly if there is insufficient time for adequate study. The individual's ability to stand the test of trial at duty is the most reliable indicator, but he must be studied while at duty; and there must be available time to study cases having difficulty at duty. This time could be made available by eliminating the long, laborious initial and second screening interviews. This agrees with Bloomberg(2) who also believes that the impressions gained from a brief screening interview are inaccurate.

No doubt there are many psychiatric screening units not using trained psychiatrists for brief screening interviews. To do so is akin to using a well-trained surgeon to examine recruits for hernias, hemorrhoids, or flat feet. At initial screening, only gross signs of pathology are looked for; *e.g.*, severe anxiety, withdrawal, severe exaggerations of behavior, psychosis, etc. There isn't time for much else. One need not be a trained psychiatrist to detect these signs. I do not wish to imply that these interviews should be entirely eliminated; it is important to see each new recruit. However, this could be done by a less trained examiner, who could hurriedly scan the recruit for gross signs of abnormality while reviewing his intelligence score and psychiatric questionnaire, thus freeing the psychiatrist and experienced psychologist to study cases actually having difficulty in training.

Further evidence of the ineffectiveness of the brief interview is supplied by some of my experiences with the other members of the psychiatric team who referred patients to the observation ward for study. As officer-in-charge of this ward, I soon detected a frequently appearing stock phrase peculiar to each psychiatrist, especially on borderline cases. Where the psychopathology was clear, such as a frank psychosis or a severe neurosis, all examiners described syndromes accurately. However, on borderline cases, these stock phrases frequently appeared: (1) "This poor inadequate, immature, dependent kid has been unable to continue in training, etc., etc."; (2) "This is an aggressive paranoid character—better watch out for malingering"; (3) "This is a passive-aggressive reaction, with marked conflict in the psycho-sexual sphere"; (4) "This kid

looks bad all over", (the psychiatrist usually went on to describe recruits in vague terms that never pointed to any specific factors.) (5) the fifth examiner typically referred to depressive tendencies, and often considered suicide as a distinct possibility.

Closer analysis revealed that each stock phrase was a projection of the more outstanding characteristics in the examiner's own personality. Examples 1, 2, 3, and 5 especially suggested this: they were giving thumbnail sketches of their own personalities. Were these examiners describing cases incorrectly, as I infer, or were they sensitive only to those borderline cases which were reflections of their own personalities? That these admission notes were often not descriptive of the psychopathology at hand was proved by more intensive study on the observation ward, but regardless of what explanations are given, the brief interview is inaccurate when used to elicit underlying psychopathology, and conclusions derived therefrom are highly speculative at best. But even more serious, recruits were often admitted for observation who, had more time been available to examine them, might not have had to be admitted. Removing a recruit from his platoon is a serious matter in boot camp: it not only delays his training, but undermines his esprit de corps. The above-mentioned admission notes were usually based on interviews lasting anywhere from 10 to 20 minutes. When these frequently turn out to be inaccurate as to psychopathology involved or predictability for service adjustment, how can a 2- to 5-minute initial screening interview or equally brief rescreening have any possible value?

There was little debate concerning the disposition of mental defectives or the severely inadequate personality. Here the decision rested on their ability to adjust themselves to training or their ability to learn. The psychotics had to be hospitalized, and decisions were nearly automatic as to their disposition. Epileptics, enuretics, somnambulists (after malingering was eliminated as a possibility) seldom posed much of a dispositional problem. The majority of cases, the neurotics, the mild character disorders, and the immaturity reactions, were the ones about whom decisions were difficult to make. Should a recruit with a transient hysterical symptom be discharged? How often do these people, or relatively asymptomatic hysterical characters, run amuck when under fire? How schizoid should a recruit be and still be kept to duty? How much stress can a schizoid individual stand before he becomes schizophrenic? Should the immature boy who cries nightly for the first 2 or 3 weeks of recruit training be sent home? What about headaches, backaches, painful feet, "blind staggers", "miseries", gastrointestinal disturbances, inability to urinate in the presence of other men, and a host of other symptoms? What are the criteria that tell us when men will decompensate under stress? What indicators accurately point out the partially or completely malingered symptoms? Because a recruit reacted with a symptom formation to the initial shock of training, but later became asymptomatic—is he a risk? Or even if he retains his symptoms all through recruit training, but performs *adequately,* should he be discharged? We speculate as to the dynamics underlying abnormal behavior. Can these speculations be used as cause for discharge? Aita(3) showed that it was impossible to predict the future of soldiers on the basis of previous poor performance. We noted that recruits often enter camp with a myriad of somatic complaints or other symptomatology, but with good leadership and improved motivation became entirely asymptomatic and performed well. To have discharged those men prematurely without adequate study and trial at duty would have been a serious mistake. Egan(4) studied the records of 2,054 men who had been rejected by Selective Service Boards as unsuitable for military duty one or more times, but who were subsequently accepted for service; 79.4% of these men served successfully. Of the nearly 2 million men rejected by Selective Service Boards during World War II, as psychiatrically unfit because of poor histories and evidence of psychopathology, many undoubtedly could have served. Egan concluded that unless an individual is psychotic or so severely maladjusted as to be nonproductive in civilian life, he should be accepted for service. Pratt and Neustatdter(5) compared the combat records of 75 neurotics and 75 non-neurotics on the basis

of awards and decorations, total length of service, and length of overseas service. Although the level of performance was slightly lower for the neurotic group, he concluded that neurotics, unless severely incapacitated, should be used for military service. Plasset(6) in his careful study of 138 combat troops, classified as neurotics, found that only 4 were evacuated for psychiatric reasons after 60 days of combat; 9 had received Purple Hearts, and 8 received Bronze Stars for Meritorious Service. Sharpe(7) studied 395 neurotics and mild psychopaths who were salvaged during a 2-year precombat period. Only 12 were lost for psychiatric reasons during 50 days of combat. Brill and Beebe(8), who doubt that we understand predisposition as well as we think, believe that superficial psychiatric screening can only make a limited contribution to the control of psychiatric casualties during a war; that induction screening should be done only to remove the very obvious misfits; and that a trial at duty is the only real test for doubtful cases. They conclude that psychiatrists should be concerned with better utilization of men on duty rather than with prediction of break down.

If trial at duty is to become the factor deciding a man's suitability for military service, then this concept requires clearer definition. Under the pressure of heavy induction or enlistment, the path of least resistance is to remove a maladjusted recruit from training, study him briefly, and decide to send him home on the grounds that he will "crack up" under more stress. To keep complaining, unhappy men at duty is no easy task, and the simplest thing to do is discharge them after placating one's conscience with the rationalization that prolonged stress or combat would only result in another psychiatric casualty. Because nostalgia and poor motivation are such large factors in cases of maladjustment, no decision regarding a recruit's suitability for service should be made in the first 2 or 3 weeks of training. The initial shock of being away from home can magnify minimal symptomatology to alarming proportions. So-called inadequate personalities often do not appear so inadequate after this initial shock is worn off, and with this group it is especially easy to draw hasty conclusions. Understanding, but firmness, is the key to keeping men at duty so far as the psychiatrist is concerned. Men removed from duty for psychiatric study must never be allowed to feel "that they have it made." They must be led to believe that the observation wards are a place where they are studied and helped, that they are admitted there for a brief respite only, and the focus must always be an early return to duty. Recruits should never be allowed to lie around idly for weeks with nothing to do, this only reinforces their symptoms and delays their training. They should be seen immediately on admission, an understanding of their complaints should be determined as soon as possible, and a decision reached. Recruits will often cry profusely, beg the examiner on their knees, or pray for divine help. Such cases have been returned to duty after several admissions to the observation ward, and they often eventually adjust. If their symptoms and complaints continue unabated for several weeks, the possibility of discharge may be considered. I recall one case who was returned to duty with a military police escort. This man afterward became leader of an honor platoon. He had originally complained of headaches and painful back; he cried profusely, and finally refused to return to duty. He had been admitted to the observation ward twice, and twice returned to duty. Another case complained of "blackout spells," weakness, nervous tension, etc. He was highly unmotivated. He had been twice returned to duty from the observation ward, and once by the Aptitude Board. In the last weeks of training, it became unmistakably clear that he simply could not adjust. Both of these men had had an adequate trial at duty lasting for many weeks; it was possible to arrive at an accurate decision only because their trials at duty had been *adequate*.

In spite of the criticisms offered above regarding the techniques of psychiatric screening, and in view of the thoughts just expressed regarding utilization of neurotics and mild-to-moderate character disorders for military service, the following recommendations are submitted:

(1) All incoming recruits will fill out a questionnaire designed to elicit neurological and psychiatric pathology. The standard

GCT test for intelligence will be taken by each man.

(2) These questionnaires and GGT scores will be reviewed in the presence of each recruit. This interview will be done by a psychologist or some individual familiar with the more gross aspects of psychiatric syndromes and should not last longer than 1 or 2 minutes. The examiner should restrict himself to labeling as "suspect" not more than 5% of the total incoming population. Only the grossest signs of abnormal behavior or the severest history should be taken as a basis for calling a man back for a second interview 2 or 3 weeks after his training has begun. A recruit will practically never be admitted to the observation ward directly from this initial interview unless frankly psychotic, regardless of how bitterly he may complain.

(3) By having regular meetings with the company commanders and infirmary officers, the psychiatric staff will instruct these officers as to the function of the psychiatric unit. A system will be worked out whereby maladjusted recruits can be referred for psychiatric evaluation. These recruits will bring with them a record of their performance and a statement of the problem as seen by their company officers. Infirmary officers will refer probable psychiatric cases on a regular medical consultation basis. When men are returned to duty from their referral interview, a report should always be sent to the recruit's superiors. These reports should include a brief psychiatric explanation for his maladjustment, and must state recommendations concisely and clearly. Such an arrangement is highly effective, and company officers are often eager to carry out suggestions when they are dealt with openly yet diplomatically. Psychological testing may be done at these interviews to determine latent psychopathology, and especially mental defectives will be detected in this manner.

(4) Recruits may be admitted to an observation ward only after an extensive trial at duty, and no man should be discharged from service unless he is mentally defective, frankly psychotic, or so severely neurotic or suffering from such a severe character disturbance that adjustment to military life is clearly impossible—a fact well substantiated by an *adequate* trial at duty where feasible.

(5) Where disciplinary action is under consideration for a maladjusted recruit, the psychiatrist should intervene only where psychological factors are unequivocal.

Discussion

The procedures described in this paper undoubtedly do not apply to many recruit training centers, and it is entirely possible that the screening procedures at the 2 recruit training centers on which this report is based have since changed. The main purpose of this presentation therefore is to give evidence and add weight to the belief that psychiatrists cannot detect potential psychiatric casualties on the basis of a brief screening interview; and to use psychiatrists in this manner is to misuse them. Psychiatric screening is necessary, but it should be a running, continuous process throughout the entire training period, and the psychiatrist should be called in only when maladjustment occurs. Combat psychiatrists can undoubtedly offer the best evidence regarding the suitability of neurotics and certain character disorders for combat or for noncombatant military service. However, on the basis of my experience with recruits, it is clear that many neurotics and mild-to-moderate character disorders can function in a military organization if properly handled and not allowed to utilize the primary or secondary gain of their symptoms. I have been repeatedly amazed at the quantity of ego strength many neurotics have been able to muster during periods of stress. As yet I know of no accurate measure of this reserve.

Summary

1. Psychiatric screening procedures of 2 large recruit training centers have been described, and a revised screening plan suggested.

2. Exception is taken to the premise that brief psychiatric screening is of value in predicting possible psychiatric casualties, except in certain obvious cases. It is suggested that trained psychiatrists be spared this task and should devote their full attention to malad-

justed recruits and to better man power utilization.

3. It is suggested that only the obviously psychiatrically unfit be rejected for service and that decisions regarding nonpsychotics should be based primarily on an *adequate* trial at duty and only secondarily on history and impressions regarding psychodynamics, etc.

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SELECTIVITY AND OPTION FOR PSYCHIATRY[1]

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The topic for this address did not seem to lend itself well to extemporaneous presentation and because of difficulty with my eyes which you must have noticed, I thought the best method of presenting my paper would be through the tape recorder. It not only reproduces the voice but it can be shut off at any point for spontaneous comments.

The idea of recordings for psychiatric presentation occurred to me in 1935 while working with a case of depersonalization. It seemed extremely desirable to reproduce the patient's dead, toneless voice. The Dictaphone Company kindly cooperated by constructing a specially designed instrument for this recording and it was presented at The New York Neurological Society,[2] but its fidelity did not compare with the present improved tape recording.

Terms such as option, discrimination, preference, selectivity, and segregation are generally in disfavor in the social scheme and philosophy of a democracy such as we live in. So at the outset, I wish to make unequivocally clear my agreement with this philosophy and opposition to legalized segregation in the social scheme. The latter, I believe, is disadvantageous to those who are excluded and probably ultimately automatically harmful to those who are presumably privileged by the segregation of minority groups. Usually these excluded groups, such as sects, cults, etc., are most likely to be alien to the majority in some characteristic.

Attached to the sedate red brick wall of the old New York Presbyterian Hospital on Madison Avenue was a bronze tablet which, as I remember, was inscribed: "For the sick without regard to race, creed or color." As a youth I often stood before it, fascinated by its inspired and inspiring sentiment. Later, it became apparent how practicable and sound this principle could be as a social philosophy as well as in its clinical application.

The drive of many forces threw my efforts into the realm of mental sickness—to which I had previously given little thought. The suffering of the insane in the crowded halls of Manhattan State Hospital was more pitiable, more enduring than aught which I had seen as an intern at Bellevue Hospital, with its anguished, lethal breathings. These mentally ill were crippled by injuries which could not be treated with agents universally effective in general medicine and surgery. Quinine against malaria would be equally potent with a Buddhist or a Baptist, even with the belligerent members of the Northern and Southern branches of the Baptist Church. But in mental illness conditions exist which require special consideration of race, creed, and color before they can be even gently touched. Special knowledge in two particulars, at least, is necessary for effective treatment—linguistics and an understanding of racial heritages. Of course, the mere possession of such knowledge by the psychiatrist does not necessarily give him the skill to apply it. He also needs a particular quality of character and disposition to convey confidence to a broken, suspicious, or resentful patient.

Segregation in certain schools that exclude pupils of a given race, creed, or economic level, or social heritage is apt to react unfavorably upon the pupils in fostering false self-evaluations and fixations and in stigmatizing children who are not admitted as inferior or undesirable. Perhaps this position may even be extended to the college fraternity, an organization intermediary between a group formed to foster friendships among a selected few and an exclusive group which eliminates possible members because of race, creed, or color. Situations from which a person is pointedly excluded often crystallize long-harbored feelings of insurmountable prejudice and produce reactions which fall within the province of the psychiatrist. Thus a half-hearted attempt at suicide followed the failure of a Princeton student to be elected to one of the more prominent undergraduate clubs at the university.

Of course, such schools, and similar forms of selectivity, can persist only because of deep-seated feelings on the part of adults

[1] Presidential address delivered before the annual meeting of the American Psychopathological Association, New York, June 5, 1953.

[2] Oberndorf, C. P.: The Dictaphone As An Aid to Psychiatric Case Presentations, J. of Mental and Nervous Dis., Vol. 86, No. 1, July 1937.

(parents) who choose to support them because they consider the standards conducive to the perpetuation of ideals retained by them. They may regard such optional modes of social adaptation desirable not only for their own good but, and perhaps sincerely, for the general welfare of society as a whole: for example, that the ruling group should consist of an oligarchy of the intelligent. Such feelings, handed down from father to son, cannot be altered rapidly by legislation. The free school system, over a hundred years old, has not eliminated private or sectarian schools which preserve the beliefs, ethics, and moral standards of the parents; *e.g.*, parents unwilling to accept full responsibility are apt to choose a progressive school for their offspring, the devout Catholic a parochial school or college, thus extending the atmosphere of the home to the school. Situations involving homogeneity persist in housing in cities where segregation is not legalized but determined by individual choice, and people move away when "undesirables"—Japanese, Chinese, or the like—infiltrate a "nice" neighborhood.

The topic on which I wish to focus attention is not the merits of legalized segregation, such as a red-light district or the proximity of churches to saloons, but the therapeutic setting which is most advantageous for the restoration of persons who are mentally ill to social and mental health and the need for such provision. In the final analysis, psychiatric therapy aims toward the return of those who have drifted from an accepted norm to conduct and thinking within a scope of that concept.

May I cite an outstanding example which came to my notice, not in any sense of criticism but because it illustrates the point strikingly. In the State of New Mexico there is a mixed population of Indians, Americans of Spanish descent, and Americans popularly called Anglos, who have European ancestors other than Spanish. Here we find only the one state hospital for the insane at Las Vegas. The population of the hospital, numbering something over 1,100, consists of about 70% Spanish-Americans, nearly all Catholics, about 25% Anglo-Americans, mostly Protestants, and 5% native American Indians.[3]

[3] The author is indebted to Dr. John P. Howser, Clinical Director of New Mexico State Hospital for these data.

The staff of physicians and nurses is almost entirely English-speaking, as are many of the attendants. Merely because of language difficulty, it would be almost impossible for a physician who did not understand Spanish, was unfamiliar with the Spanish-speaking American's temperament and social heritage handed down for over 300 years, and possibly unsympathetic to Catholicism, to make a diagnosis and to administer any therapy which included linguistic communication. In translations the idioms, nuances, and finesses of expression, so meaningful to a patient, vanish when communicated mechanically by a third person in a second language.

The need for a second hospital for the insane in New Mexico is great, for the overcrowding and inaccessibility of Las Vegas to certain parts of the state have long been matters of concern to civic organizations. However, it is likely that should a new hospital be designated exclusively for Spanish and Indians, or Anglos and Indians, staffed correspondingly, incensed protestations against such segregation might arise from each of the three groups concerned—and this in the face of the obvious benefits, from the psychiatric angle, which such a separation might yield.

It may be advanced that having psychiatrists of various creeds and nationalities selected on that account for services in nonsectarian psychiatric institutions—for example, Spanish-speaking physicians to take care of Spanish patients in an institution such as Las Vegas—would fulfill this need. But this alternative would not equate the advantages of treatment undertaken in a general setting where the patient feels at home, *i.e.*, in New Mexico, a hospital where the food, language, and personnel are Catholic Spanish-American. Indeed, a Spanish-American physician might well, unconsciously, feel resentful to the Anglo psychiatric patient, now at his mercy through illness, because of an inherited resentment of the conquered to their conquerors. A psychiatrist presumably should be able to maintain his equanimity and impartiality in the assessment of his patient's psychosocial deviation. However, this is a practical impossibility, as has become apparent with psychoanalysts who have undergone prolonged analyses to free them of their blind spots and biases. At times, impartial

(if there can ever be such a thing) outside observers say that all private analysts are definitely non-socially minded because their practice, based upon fees, places them automatically in the category of capitalistic thinking.

Certain groups to which we belong, being biologically determined, never change. They are: (1) sex, (2) age, and (3) color groupings. The question of separating the first group (sex) in hospitalization is never questioned and rarely is the second, namely, the undesirability of mixing children with adults, and more recently, of the ever-growing number of old-age psychotics with the average adult age group.

Some may object that segregation in institutions would tend to perpetuate sectarianism, which forward-looking people hope will ultimately disappear. This criterion often supersedes all others in the mind of minority groups. Some years ago the question came up in the Committee for Mental Hygiene Among Negroes of the impossibility for Negroes to avail themselves of treatment in the best private mental hospitals in the New York area. An ever increasing number of Negroes, mostly from the fields of amusement, literature, and sports, can afford such accommodation. Therefore, in line with the contention of this presentation, I suggested the establishment of an endowed mental hospital for Negroes with private quarters, similar to the one (Hillside Hospital) I had proposed in 1922 for Jews, which would cater to the latter's linguistic and ritual needs. It was based solely upon the opinion that it is simpler to achieve a restitution to health when the patient's confidence is gained and this is more readily attainable in a setting in general sympathy and empathy with his previous experiences. However, a Negro member of this committee, a journalist, quietly replied, "Doctor, others see a different solution of the problem"—distinctly indicating the exertion of pressure to force a change in the position of established white institutions, completely misunderstanding the psychiatric basis of my proposal.

It would seem, then, that an institution such as the Veterans Hospital at Tuskegee, where an all Negro staff of psychiatrists and nurses administers treatment to an all Negro patient population, serves this particular group more efficiently than would be possible with a white staff. On the other hand, I would be inclined to question the desirability of having an exclusively Negro student body with an exclusive Negro faculty such as operates the Tuskegee Institute which adjoins the Veterans Hospital. However, the millenium is far away and the most that can be expected or desired in central Alabama in the near future would be a mixed faculty membership.

Psychiatrists, as doctors, treat sick people but the depth of such sickness is largely determined by the degree to which patients deviate from accepted values, standards, or norms. Indeed, capacity for adaptation and change to current customs may be considered an essential characteristic of normalcy. In other words, a woman of forty-five who has been unable to change her bathing suit from one consisting of bloomers, dress, and stockings to a halter and shorts would be regarded as decidedly peculiar. The same might be said of nonconformists in broader categories such as those persons who espouse communism in a democracy or democracy in a communistic state. To test the validity of this idea I asked an intelligent layman what he thought of the mental condition of Communists in this country and without hesitation he replied: "Certainly 75% are very odd people, funny people—nuts." This opinion might be easily reversed where a Nazi psychiatrist selectively limited his practice or even accepted Jewish patients in the Germany of 1936—he would probably have been considered very odd, or criminal, or insane. There did exist during the Hitler regime Nazi psychiatrists, but a psychoanalyst could not continue and remain true to psychoanalytic individualism.

In the matter of racial heritage, the American Spanish-speaking patients such as I have arbitrarily signalled out in New Mexico, and here one might substitute the words Negro, Mormon, or Chinese, as well as the Seventh Day Adventists—a small religious group which is native, white, Christian, and English speaking, but nevertheless reacts very largely as an alien body—are in a handicapped position through a century of exclusion by an entrenched majority of neighbors. This has engendered defenses which usually only the initiated can recognize and sympathetically tolerate.

Less obvious aspects of the same difficulties in all mental hospitals come to mind and they center around such general problems as identification, appersonation, transference, positive and negative, and countertransference. By this it should not be assumed that Negroes with mental afflictions should be treated only in Negro hospitals by Negro psychiatrists, children by extremely young people, or Catholics, Jews or Episcopalians by psychiatrists of their own persuasion. Nevertheless, from a therapeutic standpoint, transference in its positive form is most likely to be easily established and examined (analyzed) between patient and hospital and patient and physician if their psychological biases do not differ too widely. Sometimes the patient has been bitterly disappointed in his own group (parental setting). In such instances a psychiatrist with a different background may be more effective in convincing the patient of the admissibility of the position of this group or class, which he is attempting to evade by renunciation. The fear of the stranger, originating in the young child's feeling of security in the accustomed, and need for protection in the face of the unfamiliar person or place are almost instinctive. They are reactivated when in later years the individual finds himself thwarted in adaptation to a threatening or incomprehensible outer world. This need is perhaps universal and in many cases persists and increases in old age, when the need for assistance at a childlike level returns.

Mental hospitals differ from other hospitals in that patients are usually not confined to bed and are encouraged to engage in group social activities as part of the treatment. Most mental patients have experienced difficulty in making social contacts under circumstances in which they are at home. For that reason many private mental hospitals select their patients because they offer a social environment into which the patient is most likely to fit, and such institutions also exercise their option of receiving patients who will not be put to an additional effort of adapting to an unaccustomed setting. Such a homogeneity is conducive to social relationships and fosters a feeling of tacit acceptance valuable to the peace of mind of most mental patients.

Similar situations exist in outpatient psychiatric clinics, such as at St. Vincent's, Mount Sinai, and Presbyterian Hospitals in New York. The services in each of these institutions attract mostly patients—but also are staffed by physicians and social workers —of the respective theological backgrounds. The philosophy of each clinic is inevitably determined by specific traditions.

This topic seems timely, for during the past decade scientists and psychoanalysts who regard their practice more as a science than an art seem less inclined to attack organized religion, and theologians are more willing to draw from psychiatry "scientific" facts which they blend with a particular theology.[4] Even a special coloring of psychoanalysis might be expected to appear when administered in any national or age group, or religious setting. This would manifest itself especially in the handling of problems of sex and sin, which are so often at the base of mental maladjustment.

The objection may be raised that just this type of individual pandering to special groups would tend to counteract movements to abolish distinctions, which are becoming more of a reality in this country at least. However, not only in the United States, but the world over, groups are influenced by heritage of suspicion and are isolated by language difficulties which accentuate their mental hazards. Until they can accept assimilation, not only into their own nation but into the family of nations—still only a remote ideal—special provision is desirable for those who are badly adapted in their own group.

There comes a time in the process of assimilation of alien folk in this country when they voluntarily abandon open allegiance to their heritage. Often this assumes an overcompensatory intensity which may grow into such tragic proportions with the second generation that it comes to the notice of the psychiatrist. When this time arrives, the children of Italian or Russian parents often develop a pointed desire to avoid identification with their groups by change of name, religion, or residence.

For people in transition, a hospital such as I have mentioned is neither intended nor designed. It might be a hindrance rather than a help to them in their striving to abandon

[4] For example, VanderVeldt, James H., and Odenwald, Robert P. *Psychiatry and Catholicism.* New York: McGraw-Hill, 1952.

old identifications and establish themselves in new ones. The option should rest with them and they often insist upon it. This would also apply to private psychotherapy and one of its particular forms, psychoanalysis. Physicians whose personalities strongly recall the ideals from which the patient is attempting to escape and who arouse strong negative feelings in the patient during the initial contact, are usually quickly abandoned by the patient. They will seek a doctor whose characteristics and outlook more nearly correspond with their own unconscious and conscious strivings.

If the psychiatrists are psychoanalytically-minded, each might find in Freud's elaborate structure certain postulants reflecting the tenets of many philosophies and faiths. Freud's pessimistic view is expressed in *Civilization And Its Discontents:* "I can at any rate listen without taking umbrage to those critics who aver that when one surveys the aims of civilization and the means it employs, one is bound to conclude that the whole thing is not worth the effort. . . . My courage fails me, therefore, at the thought of rising up as a prophet before my fellow-men, and I bow to their reproach that I have no consolation to offer them." This outlook of Freud's is reminiscent of the hopelessness of Calvinistic predestination, and might creep into the psychoanalyst's feeling, reflecting itself in passive inactivity. A study group in psychoanalysis in a Dominican Order in Montreal has been in existence for some years. A Catholic psychoanalyst or a psychoanalytically informed priest will find in the catharsis of psychoanalysis a procedure long successfully employed by their Church in the form of confession. They might feel inclined to assuage the conflict which includes guilt, and thoughts hitherto unconscious, by suggesting that the patient receive absolution. Jews, too, might find some solace in Freud's thought that one can defend oneself against the dreaded outer world only by turning away from it, in order to attain security and peace.

Freud, at least theoretically, was inclined to avoid decisions of an ethical or moral nature in the treatment of social problems which enter into all mental illness. He thought his function sufficed when the patient has progressed to a point where he might select his course of action uninfluenced by any opinion of the psychiatrist. From what I know of Freud's procedure and actual practice, he deviated frequently from this scientific, impersonal conception. The sensitive Ferenczi, after 20 years of allegiance to Freud, and later other analysts, abandoned the cool, passive technique in favor of actual encouragement of the patient in one direction or the other, giving consideration to moral and ethical factors—of course, as he valued them. I think it is quite likely that a member of the East Indian Psychoanalytic Society would apply the Ferenczi technique with a very different slant, as would a member of a North American Indian Psychoanalytic Society, should one ever be formed.

The object of all psychotherapy is to bring about an integration within the individual, for the lack of such integration leads the individual into difficulties with himself and his environment. The concept of an autonomous individual is imaginal. He is continually being influenced and changing, awake and asleep, through pressures both physical and psychical, from within his body and from without. The same may be said of the psychoanalytic categories of the mind, the Id, the Ego, and the Superego, which in psychiatric discussions of conduct sometimes appear to be regarded as almost autonomous. These categories, like the individual, are always in flux.

The thesis of this paper has been that the integration of the mentally disturbed individual can best be achieved if he is treated by one of those who understand his motivations, rather than by one considered expert in a particular form of mental illness. If both can be combined in the same individual, we approach the ideal. With his mental equilibrium re-established, the patient can more readily readapt himself to the group in which he is placed by time of his birth, color, or locality. Therefore it seems probable that for many years there will be a place for the selective mental hospital which serves a distinct need. In time it too may follow the pathway of the individuals for whom it was originally planned, adjusting itself to the ideation and customs of the majority to which it usually eventually yields.

[5] Freud, Sigmund. *Civilization And Its Discontents,* p. 142. London: The Hogarth Press, 1953.

RELIGION, NATIONAL ORIGIN, IMMIGRATION, AND MENTAL ILLNESS[1]

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In the midst of the current dynamic orientation in psychiatric theory, the investigators in this study have reapproached some of the major social variables that have been part of the basic etiological data of clinical psychiatry. These are long-standing regularities which must either be included in psychodynamic theory or dismissed as artefacts. The distribution of mental illness among religious and nationality groups is a subject of special interest since these factors undoubtedly create a great deal of personal conflict. People still tend to type themselves according to these labels even though this form of differentiation is very much discredited in the American ideology. Beyond this rejection based upon our system of values the scientist cannot disregard certain empirical findings in the distribution of mental illness which have turned up with considerable regularity.

It has been pointed out in previous studies that the diagnostic categories of mental illness are not proportionately distributed among the religious and nationality groups; also, that immigration into the United States has a determining effect upon the occurrence of mental illness. Most of the preceding investigations have dealt with the numbers of first admissions to mental hospitals (2, 6, 7). There have also been surveys of Selective Service examinations which represent random samples of the male population within certain age limits (4). In this study, we have examined the distribution of psychiatric illness according to religion, national origin, and immigration in an urban center with a population of approximately 250,000. Since the previous studies were carried out 10 to 30 years ago, our findings can be expected to reflect some of the trends brought about by advancement in psychiatric treatment and also some of the effects of changing social conditions.

DESIGN OF THE SURVEY

A survey was made of all patients with residence in the metropolitan area of New Haven under the treatment of a psychiatrist on December 1, 1950. For each patient a schedule was addressed to his psychiatrist or filled out from his record in a mental hospital or outpatient clinic. The effort to cover the entire population under psychiatric treatment on this particular date involved contacting all the practitioners, clinics, and hospitals in the state and nearby regions, as well as national hospitals treating New Haven patients. In the total, 1,963 cases were found with 1,393 located in public hospitals, 37 in private hospitals, 159 in clinics, and 374 being treated by private practitioners.

A direct inquiry was made about the patient's place of birth, rearing, and religion; also the nationality of his parents in order to determine his national origin. The psychiatric diagnosis proposed by the practitioner or the record was converted into the Veterans Administration diagnostic scheme after agreement with the opinion of members of our psychiatric team.[3] Since consensus was difficult in certain of the subcategories, the differences were resolved by combining the subcategories under a more general heading. This was necessary for the psychoneurotic, psychosomatic, and character disorders. Alcohol and drug addictions were grouped together as were the affective disorders and the illnesses of senescence. The small number of organic mental illnesses necessitated

[1] Read at the 109th annual meeting of The American Psychiatric Association, Los Angeles, Calif. May 4-8, 1953.

[2] From the Yale University Departments of Psychiatry and Sociology, aided by USPHS Mental Health Act Grant MH 263 (R), "Relationship of Psychiatric Disorder to Social Structure." Also participating in this research were F. C. Redlich, A. B. Hollingshead, H. A. Robinson, and L. Z. Freedman.

[3] Adapted from the Veterans Administration Nomenclature: TB 10A-78.

TABLE 1

DISTRIBUTION OF PSYCHIATRIC AND GENERAL POPULATION ACCORDING TO DIAGNOSIS AND RELIGIOUS AFFILIATION

	Catholic		Protestant		Jewish	
	No.	%	No.	%	No.	%
General population	6,736	57.5	3,869	33.0	1,108	9.5
Total psychiatric population	1,059	57.0	576	31.0	223	12.0
Psychoneurotic and character disorder	189	46.2	122	29.8	98	24.0
Alcohol and drug addiction	61	68.5	28	31.5	0	0.0
Schizophrenia	506	60.8	245	29.4	81	9.7
Affective disorders	86	55.1	53	34.0	17	10.9
Psychosis with mental deficiency	56	61.5	23	25.3	12	13.2
Disorders of senescence	100	55.9	67	37.4	12	6.8
Epilepsy	25	71.5	9	25.7	1	2.9
Other organic	36	53.8	29	43.4	2	2.8

their inclusion under one heading. The final form of the diagnostic scheme which has been carried through the entire study is presented in Table 1.

FINDINGS

Religion and Mental Illness.—The analysis of the population broken down into the 3 major religious groupings is shown in Table 1. Comparison of this psychiatric population with a control group consisting of a 5% systematic sample of the general population reveals a significant statistical difference in the distribution of total mental illness, the psychoneurotic disorders, and alcohol and drug addiction among the religious groups.[4] In addition, significance is approached in the distribution of the organic illnesses. However, it was found that schizophrenia, the affective disorders, psychosis with mental deficiency and illnesses of senescence were distributed in the same proportions as in the general population. Since it was found in a previous analysis that social class is also a determining factor in the distribution of mental illness, this possibility was checked in all of the significant findings in this study(8). This was of importance in the finding that psychoneurotic disorder among Jews was 2½ times above expectation. Our check brought out that social class accounted for this skewed religious distribution in the lowest socio-economic level; however, only 10% of the neurotic patients were in this level. The Catholic group was found to be inordinately high for alcohol and drug addiction, and it is remarkable that there were no Jews with this form of illness. Social class was of no importance in this instance.

Our findings have been compared with those of Malzberg and Dayton, using first hospital admissions(2, 6). As would be expected, our rates were higher for psychoneurotic disorders since we had included ambulatory patients. In all other categories our findings are substantially the same as those of other investigators. In contrast to what is stated in 2 textbooks of psychiatry(3, 9), we did not find a higher rate of affective disorders among Jews. This observation was also made by Malzberg(5) in 1930.

National Origin and Mental Illness.—The response to the question regarding national origin cannot be taken as an entirely valid indication of nationality. It is merely the respondent's subjective impression of the patient's origin. Since our data on this item were crudely defined, analysis was limited to 4 categories representing relatively distinct groups—the Irish, Italian, Negro, and Jewish.[5] As national origin of the parents differed in only 10% of the cases, that of the father was used as the index. As there are no general population figures dealing with national origin, it was necessary to compare the distribution of diagnoses within each nationality group (See Table 2).

Significant differences were found in the distribution of mental illness among these 4

[4] The Chi Square test for difference was utilized in all calculations in this paper and significance is defined at the .05 level, although in most cases it was less than .01.

[5] Negroes are included although strictly speaking they represent a racial group.

TABLE 2

DISTRIBUTION OF PSYCHIATRIC POPULATION ACCORDING TO SELECTED ETHNIC GROUPS AND DIAGNOSIS

	Irish		Italian		Jewish		Negro	
	No.	%	No.	%	No.	%	No.	%
Psychoneurotic and character disorders	50	15.5	93	23.4	98	43.9	10	11.1
Alcohol and drug addictions	35	10.9	3	0.8	0	0.0	8	8.9
Schizophrenia	153	47.5	192	48.4	81	36.3	50	55.6
Affective disorders	23	7.1	35	8.8	17	7.6	1	1.1
Psychosis with mental deficiency	12	3.7	21	5.3	12	5.4	3	3.3
Disorders of senescence	42	13.0	36	9.1	12	5.4	9	10.0
Epilepsy	0	0.0	3	0.8	1	0.4	1	1.1
Other organic	7	2.2	14	3.5	2	0.9	8	8.9
Total	322	99.9	397	100.1	223	99.9	90	100.0

groups. Within the individual groups Jews were high for psychoneurotic disorder (Table 1). The Italians were low for alcohol and drug addiction while the Irish were high. Clearly the high rate of alcoholism among Catholics mentioned previously actually is to be found in the Irish group since these 2 nationalities make up the majority of Catholics in this city. A unique finding is that Negroes were extremely low in their proportion of affective disorders(10). Six of the 8 Negroes with organic disease had general paresis; however, this represents a dramatic decline in total numbers in comparison with earlier studies(2, 6). All other findings are substantially the same as previously presented.

Immigration and Mental Illness.—Since immigration into the United States has been very low during the last 2 decades, the average age of the foreign-born population is considerably higher than the native-born. For this reason, analysis was limited to a comparison of the psychiatric and general population over 21 years of age.[6] These findings are presented in Table 3. There is a significant difference in the distribution of native- and foreign-born with a higher proportion of foreign-born in the total psychiatric population and in the diagnostic categories of affective disorder, illnesses of senescence, and the organic illnesses. A significantly higher occurrence of psychoneurosis is found among the native-born. In the remaining diagnostic categories there are no significant differences between the native- and foreign-born. The similarity between these findings and those of Dayton(2) is remarkable if neurosis is excluded from the computation.

The foreign-born population was broken down into specific national groups (Table 4). It was found that the Italians were high for affective disorders and illnesses of senescence. The Irish were high for illnesses of senescence and the addictions but devoid of any psychoneurotic disorders. Northwest Europe was high for illnesses of senescence; Poland and Russia for affective disorders and schizophrenia. These findings show the same relative trend reported by other investigators.

GENERAL DISCUSSION

It is important to note that this survey is not a true prevalency study of psychiatric illness: it is limited to those people with mental illness who are under the treatment

TABLE 3

DISTRIBUTION OF PSYCHIATRIC AND GENERAL POPULATION, 21 YEARS OF AGE AND OVER, BY NATIVITY AND PSYCHIATRIC DIAGNOSIS

	Native-Born		Foreign-Born	
	No.	%	No.	%
General population	135,568	79.5	34,900	20.5
Total psychiatric population	1,363	77.0	408	23.0
Psychoneurotic and character disorders	313	93.2	23	6.8
Alcohol and drug addictions	70	85.4	12	14.6
Schizophrenia	643	76.9	193	23.1
Affective disorders	102	65.4	54	34.6
Psychosis with mental deficiency	67	84.8	12	15.2
Disorders of senescence	91	50.3	90	49.7
Epilepsy	32	91.4	3	8.6
Other organic	45	68.2	21	31.8

[6] The data on the country of birth of the general population were obtained in 1950 United States Census reports.

TABLE 4

DISTRIBUTION OF PSYCHIATRIC AND GENERAL POPULATION, 21 YEARS OF AGE AND OVER, BY COUNTRY OF BIRTH AND PSYCHIATRIC DIAGNOSIS

	Italy		Ireland		N.W. Europe		Poland and Russia		Other For.-Born		Native Born	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
General population	13,369	7.8	3,357	2.0	5,723	3.4	7,252	4.3	5,199	3.0	135,568	79.5
Total psychiatric population	135	7.6	51	2.9	64	3.6	97	5.5	6	3.4	1,363	77.0
Psychoneurotic and character disorder	5	1.5	0	0.0	6	1.8	5	1.5	7	2.1	313	93.2
Alcohol and drug addictions	1	1.2	4	4.9	3	3.7	2	2.4	2	2.4	70	85.4
Schizophrenia	56	6.7	23	2.8	27	3.2	60	7.2	27	3.2	643	76.9
Affective disorders	25	16.0	5	3.2	6	3.8	14	9.0	4	2.6	102	65.4
Psychosis with mental deficiency	6	7.6	0	0.0	1	1.3	1	1.3	4	5.1	67	84.8
Disorders of senescence	35	19.3	16	8.8	16	8.8	10	5.5	13	7.2	91	50.3
Epilepsy	1	2.9	1	2.9	1	2.9	0	0.0	0	0.0	32	91.4
Other organic	6	9.1	2	3.0	4	6.1	5	7.6	4	6.1	45	68.2

of a psychiatrist. It would be inaccurate to infer that the distribution found here is a direct reflection of what might be found if the community were surveyed on a random door-to-door basis since the present findings refer to a selected population. It is therefore necessary to speculate on factors that might differentiate this psychiatric population from such a prevalency sample. For example, there may be significant differences among the religious and nationality groups in their recognition of psychiatric symptoms. A similar exclusion from psychiatric treatment would arise from a difference between the cultural groups with regard to their acceptance of psychiatry as the optimal treatment for mental symptoms. These general implications of this treated prevalency sample must be held in mind in reviewing the details of this study.

The negative findings are of some interest; for example the social variables under consideration had no effect on the distribution of schizophrenia or psychosis with mental deficiency. Among the positive findings this investigation showed an increased frequency of psychoneurotic disorders. Part of this can be immediately credited to the inclusion of ambulatory patients. The acceptance of psychiatry and psychotherapeutic treatment, however, is undoubtedly a growing trend in the United States. As a new development requiring some informed intellectual comprehension, it would be expected that the better educated would have first exposure to the trend. This would explain the higher rate of psychoneurotic disorder among the native-born who have reached a higher educational level.

It is our opinion that the acceptance of psychiatry probably accounts for the inordinately high rate of psychoneurosis among Jews. The explanation for this must be considered in terms of the ethnic structure and the tradition of the Jewish group in addition to its religious organization. Among Jews it is generally accepted that there is no conflict between religious doctrine and psychoanalytic theory. This is in contrast to a partially supported opposition among Catholics. From the standpoint of community attitude, the Jews exhibit a high level of acceptance of psychoanalytic psychiatry with a minimum of disturbance of their social values. The Jewish attitude is widely divergent from the Irish as is substantiated by our finding that not a single patient of Irish birth was receiving psychotherapy for psychoneurosis. Although this explanation of the rates of psychoneurosis in terms of the acceptance of modern psychiatry appears plausible, we cannot definitely state that the actual occurence of the illness is not higher among Jews.

In this study there was found a general diminution in organic mental disease. Probably this is due to the fact that general paresis is a vanishing clinical entity as a result of improved chemotherapy. This trend also is dependent upon an enlightened acceptance of modern medicine. Our findings show that this has particularly benefitted the Negro group. Considering the mental illnesses of senescence among foreign-born, it would be our speculation that this might be explained

by the specific type of deficiency caused by this illness. The loss of recent memory erases the skill, learned later in life, essential to an adjustment in the American culture. This would create a more prevading difficulty for those who have immigrated to this country than for those reared in its practices.

The high rate of alcoholism among the Irish population and its absence among Jews has repeatedly been found(1). If this finding is compared with the rates of psychoneurosis it appears that there is some kind of cultural determination in the formation of symptoms. This poses a challenging question to the conceptual framework of psychodynamic theory. A second finding of similar challenge is in the distribution of affective disorder. This illness was found to be higher among the foreign-born and apparently of diminishing frequency in the Jewish group. The trend in affective illness, which is one of the major forms of psychosis, is not easily explained in terms of our knowledge of etiological factors.

The explanation for these cultural psychological phenomena must be in terms of the manner in which the external environment impinges upon the psychological mechanism. There are two important junctures at which this is conceived to occur. The first is the manner in which social factors color the childhood experiences, and the second is in terms of the ego's reaction to external reality. The conception of the ego's relationship with external reality implies its capacity to control the social manifestations of internal impulses in deference to external pressures. Just as behavior is modified in this way, it can be expected that neurotic symptoms which are also interpersonal communications will be influenced by social pressures. There is considerable acceptance by the Irish of alcohol as a means of tension relaxation. From the psychodynamic standpoint, it is remarkable that the Irish can find an outlet for many diverse forms of psychic conflict in this single form of escape. On the other hand, the Jewish disapproval of inebriety precludes this means for the Jewish neurotic. Our findings represent an example of cultural conditions expressing a suppressive and displacing effect upon the symptomatic manifestations of psychic disorder.

To explain the distribution of affective disorder we must seek it in the direction of the developmental process. According to psychoanalytic theory, the affective illness is based upon a fixation in the first four years of life. Hence, if social forces have some effect upon the formation of this illness, it must be that they are brought to bear upon the dynamics of the family. More concretely, this would mean the role and responsibility assumed by various members of the family and the quality of the parent-child relationship. If this is the case, it is conceivable that since the American family structure differs from the European there would be a different etiological force operating to produce affective illness. This is plausible since early childhood experience in America differs from other cultures. It has been suggested elsewhere that the accentuation of feeding has been an important factor in the causation of affective illness among Jews. The acculturation of the Jewish family to America has tended to play down this practice. We can only speculate that such changes as these operating within the family dynamics have brought about the diminution of affective illness among Jews and native-born Americans.

Summary

A survey of the prevalency of patients with mental illness who were under treatment in New Haven was analyzed according to religion, national origin, and immigrational status. It was found that psychoneurotic disorders were more frequent among Jews whereas the rate of affective disorder in this group had fallen to the average of the population. Alcoholism is most prevalent among the Irish Catholics. There has been a general fall in the rate of organic mental disease, particularly in that of general paresis among Negroes. The illness of senescence and the affective illnesses are higher in the foreign-born while psychoneurotic disorders are more frequent in the native-born. Schizophrenia and psychosis with mental deficiency are not related to the social variables.

Comparisons were made between these findings and previous studies. Speculative explanations are offered to explain the trends and disproportions.

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DISCUSSION

R. Burke Suitt, M. D., Durham, N. C.—It is interesting and informative to learn the results of the well-planned, carefully conducted, and clearly reported survey which Dr. Roberts and Dr. Myers have just given us. It seems to me that the paper confirms the traditional consequences of national or racial identity and of religious affiliation, and obligates us to attempt to understand the operation of these variables in a better fashion from individual case study, even though this is neither fashionable nor popular at the moment. The factor of intensity and consistency in the religious climate of the home during childhood might be assumed to have greater effect upon an individual's future need of psychiatric treatment than the religious affiliation in adult life.

The range of Protestant denominations seems too broad to be characterized, except as a non-Catholic and non-Jewish group. An Episcopalian's religious background—for all of its possible range—like his spiritual practices, has little in common with that of his Baptist neighbor. The personal significance of changing from one to another religious affiliation, as either a time-consuming and deeply disturbing process or as a casual and convenient event, could scarcely emerge from a study of this scope but does deserve mention because it has received so little quantitative appraisal either in the course of healthy adjustment or in the development of a mental illness.

The individual's religious conformity to his denomination's demands, if active, does tell us something of his defenses, and of their limitations. The abreactive effects—be they illness-masking, preventing, or healing—of snake handling cults are scarcely approached in more conventional means of worship. The ready cooperation afforded a psychiatric investigator and his clinical photographer in a candidly stated objective to study such a cult in action suggests that the seriously interested psychiatrist is more welcome than might be supposed in a variety of religious exercises.

The findings of a low incidence of affective disorders among Negroes in the urban population employed in this study may have been anticipated in the remarks of a deceased colleague. He pointed out that in his years as the superintendent of a large hospital receiving essentially rural psychotic Negro patients suicidal risks were negligible. This special search for a depressive equivalent comparable to the distinct modification found among the Japanese, made more recently by a contemporary psychiatrist, was rewarding to but a limited degree. In the same way, analysis of the psychoses among the Kenya Africans failed to show either the incidence or typicality of affective disorders as known in Anglo-Saxons. This study called especial attention to cultural differences operating in the two groups and safely referred to early childhood influences of diverse sorts.

The authors of this paper are to be congratulated upon correctly predicting changes from prior similar surveys. I feel that we are especially indebted to them for showing us that we are dealing with some differences that may have escaped understanding and for the inference that these differences will become more comprehensible as we sharpen our awareness of the importance of national and religious influences and their greater importance in formative childhood experience than in adult life in the present American scene.

EVALUATION OF CARBON DIOXIDE INHALATION THERAPY[1]

JOHN D. MORIARTY, M.D., LOS ANGELES, CALIF.

It has now been almost 6 years since Meduna published a preliminary report of his research on the use of CO_2 inhalation treatments for various types of nervous disorders. It has been almost 3 years since his complete monograph was published. Surprisingly enough, only relatively few articles on this treatment have appeared in the American literature. However, there are sufficient clinical and experimental data now available to form the basis for fairly extensive evaluation.

Meduna has used CO_2 inhalation therapy as a pharmacodynamic therapy and has purposely avoided administering psychotherapy along with it. Probably most psychiatrists, including the author, have found it advantageous to combine psychotherapy with the chemical treatment.

Most of the reports in the literature describe favorable results with CO_2 therapy(1-11). In one brief report(12) describing unimpressive results it was apparent that the method was being used improperly. This report stated that only 6 of the 33 patients consistently lost consciousness with the CO_2 inhalations, although Meduna has specified that loss of consciousness is essential to the therapeutic process.

INDICATIONS

The present author has employed CO_2 therapy as an office procedure and, occasionally, as a sanitarium treatment for about 4 years, administering a total of approximately 7,500 treatments to 290 patients. The psychiatric syndromes most suitable for this treatment are: anxiety states, phobic reactions, some types of character neuroses, and certain ill-defined chronic tension states with irritability and a tendency toward explosive outbursts. The response in patients with psychosomatic problems such as spastic colitis and migraine headaches is often surprisingly good. Some alcoholic patients with strong psychoneurotic features and occasionally a passive type of homosexual may show favorable reactions to this treatment. On the other hand, individuals with conversion hysteria or fairly pronounced depressive or schizoid features generally show a poorer response. As may be inferred, the therapeutic effects of CO_2 inhalations are very probably mediated through some fundamental mechanism that cuts across diagnostic boundaries which, in psychiatry, are rather ill defined at best. However, in the major psychoses and in firmly established obsessive-compulsive states CO_2 treatment is usually of no lasting benefit. The primary application of the therapy is to neuroses and psychosomatic conditions.

TECHNIQUE

It is my practice to administer 30% carbon dioxide and 70% oxygen to the count of 10 and then progressively increase the concentration of CO_2 by adding straight CO_2 to the breathing bag mixture via a Y-tube hookup. This reduces the period of hyperpnea and takes the patient to a satisfactory level of CO_2 coma rather quickly. In the series of treatments given an individual patient, the number of inhalations may be varied to probe different levels of unconsciousness and to find the most satisfactory depth for the particular patient. This approach is particularly useful for correlation with and facilitation of a modified form of analytic psychotherapy, including some of the techniques of "psychopenetration" described by Wilcox(6).

PRECAUTIONS

The somatic complications of carbon dioxide therapy are astonishingly infrequent. None of significance has occurred to date in my series of 7,500 treatments. Incidentally, pregnancy is not a contraindication as there is no oxygen deprivation during the treatment, and I have treated successfully 6 patients throughout pregnancy, including one case with associated ulcerative colitis.

[1] Read at the 109th Annual Meeting of The American Psychiatric Association, Los Angeles, Calif., May 4-8, 1953.

On the other hand, the potential psychiatric complications are important. These include an increase in anxiety to the point where the patient feels an impending loss of control and/or the release of emotionally charged "material" from the unconscious that may overwhelm his defenses and possibly precipitate a psychotic breakdown. However, when given by a psychiatrist skilled in the procedure these complications can usually be avoided without too much difficulty. Rarely is it necessary to switch the patient to electrocoma therapy.

REACTIONS DURING PROCEDURE

During the inhalation of high concentrations of CO_2 a temporary alteration of almost every nervous activity is produced, as fully described in previous reports(4, 5, 10, 13). In general there is an inhibition of the higher (cortical) centers and a release of the lower (brain stem) centers. Inhibition occurs in reverse order of the phylogenetic development of the functional levels of the nervous system, the most recently acquired centers succumbing first.

HEALING MECHANISMS

From a neurophysiologic point of view the theoretical basis for the therapeutic effect of CO_2 on nervous disorders has been extensively discussed by Meduna(4). The extensive research of Lorente de No on nerve physiology(14) has demonstrated that the action of CO_2 is: (1) to raise the threshold of stimulation of the nerve cell, (2) to decrease the speed of conduction of impulses along the nerve, and (3) to increase the height and prolong the duration of the action potential. Lorente de No has shown that all 3 effects are due to the action of CO_2 in raising the resting membrane potential of the nerve, the increases being roughly proportional to the logarithmic concentration of the gas. The central effects of CO_2 include, in addition to the release of the lower brain centers from inhibition by the higher centers, a marked increase in cerebral blood flow and an increased oxygenation of the tissues. The neurophysiologic and biochemical basis for the curative effects of CO_2 would seem to be a breaking up of pathologic reverberating circuits in the nervous system and a consequent tendency toward restoration of homeostasis. My clinical experience tends to confirm that CO_2 therapy works partly through biochemical and neurophysiologic mechanisms.

However, the effect of CO_2 in producing abreaction of repressed emotional "material" is exceedingly important. When this effect is integrated with modified analytic psychotherapy the total healing process is enhanced. It is interesting that sometimes abreaction of repressed "material" does not occur until the patient has had 50 or more treatments. In my experience the effects of CO_2 that can be attributed to suggestion are minimal and transient.

INTEGRATION WITH PSYCHOTHERAPY

It is my practice to integrate psychotherapeutic procedures with the CO_2 inhalation treatment whenever possible. In patients who show abreactions during and following inhalation of the gas, psychotherapy is of course most pertinent. Thus, certain patients have vivid dreams or richly colored fantasies, either while losing consciousness or during the waking-up stage. Some of these subjective experiences give a very clear clue to some of the deeper emotional conflicts. For example, one patient with a problem of premature ejaculation repeatedly had extensive CO_2 dreams in which his penis was being mutilated or cut off. On other occasions the same patient dreamed he was being smothered by an octopus-like female figure resembling his mother. This patient had had some superficial intellectual understanding of the nature of his problem, but the rise of vivid feelings from the deeper levels of the unconscious helped produce a real increase in awareness and a beginning of "emotional insight."

Some patients, particularly those with marked anxiety and phobic reactions, are unable to take the CO_2 treatment unless supportive psychotherapy and reassurance are given simultaneously. Their relatively weak ego structure makes them feel that they are in imminent danger of being overwhelmed by the feelings released by the gas. They, even more than other patients, associate the hyperpnea produced by the CO_2 with the

choking sensation of their anxiety. This is particularly true if the period of intermediate consciousness following cessation of the breathing of the gas tends to be prolonged—that is, if a feeling of being "still under" persists for 15 to 20 seconds after they have seemingly awakened. On the other hand, the psychiatrist can sometimes turn this reaction to good advantage if he is able to get the patient to realize that it is his own buried feelings that he is afraid of. Sometimes it is necessary to give very light, or subcoma, treatments to work the patient through this stage.

In contrast, about one-third of the patients treated with CO_2 show very little overt release of tension and remember no dream and no change in feeling tone during the procedure. However, many show a steady, progressive decrease in anxiety, and in other prominent symptoms. In such cases very little formal psychotherapy need be employed, except perhaps in the way of reeducation. It is apparent, therefore, that one must be flexible in the manner and type of psychotherapy used in conjunction with the inhalation treatments.

SUBJECTIVE EXPERIENCES WITH CO_2 INHALATIONS

Wilcox(6) has demonstrated that if the therapist himself take at least a brief series of CO_2 inhalation treatments, his awareness of the nonverbal feelings and reactions experienced by his patients will be increased. This improves his insight into some of the unconscious mechanisms brought to light in the patient by the treatment, sometimes in pretty much disguised form. The author's personal experience confirms the thesis that it is desirable for the therapist to acquire an intimate "feel" of the effects of CO_2.

My first inhalation treatment, administered by an anesthesiologist, brought sharply into focus certain subconscious and preconscious feelings and brought about some temporary alteration in feeling tone of a not unpleasurable nature. Subsequent inhalation brought further clarification of some of these buried feelings and greatly enhanced my ability to communicate with the patients about similar feelings which may puzzle or startle them, and which they might not otherwise be able to discuss.

RESULTS

It is difficult to evaluate precisely clinical results in a rather heterogenous group of psychiatric disorders, especially when most of the patients have been sick for many years. The following analysis of results represents evaluation of the first 100 patients treated in this study with a follow-up of 12 to 18 months. In general, the results in these first 100 patients coincide quite closely with the results in the total series of 290 patients. For purposes of classification the 100 patients are divided into 3 groups: Much Improved–42; Improved–29; and Unimproved–19. Criteria for classification of "Much Improved" included complete or nearly complete disappearance of symptoms, significant increase in capacity for functioning at work and at home, and adequate insight by the patient into the nature of his problem. Criteria for labeling the patient "Improved" included at least 50% reduction in severity of symptoms, significant improvement in feeling tone, and some insight into the problem. In the "Unimproved" group were listed those patients who either did not show a satisfactory response or did not maintain their improvement. This included 2 depressed patients who later responded quite satisfactorily to electroshock therapy. Interestingly enough, several of the patients showed a favorable response in terms of one condition (*e.g.*, migraine headache) whereas the response for some other concurrent condition (*e.g.*, phobic reaction) was less favorable or unsatisfactory. Table 1 indicates the results by diagnostic groups and the range in number of treatments.

Patients with anxiety states and phobic reactions showed a generally good response, as did those with character neuroses. The alcoholic patients included in the fourth category were those with a rather prominent degree of neurosis, usually of the anxiety type. The small group of homosexual patients showed improvement in some of their emotional tensions but not too much change in the basic psychosexual make-up. The small group with conversion hysteria did not respond too well, thus supporting the infer-

TABLE 1

NOSOLOGIC GROUPS

	Much Improved	Improved	Unimproved	Range in no. treatments	Median average no. treatments
Anxiety Neuroses and Phobic Reactions—48 patients	20	23	5	8 to 145	19
Character Neuroses—27 patients	14	8	5	4 to 62	17.5
Psychosomatic Reactions—14 patients	6	5	3	8 to 49	19
Alcoholics—10 patients	5	2	3	8 to 45	21
Homosexuals—4 patients		2	2	16 to 47	17
Depressive Reactions—3 patients		1	2	11 to 34	24
Conversion Hysterias—6 patients	1	2	3	8 to 25	13

NOTE: Twelve of the patients were listed in 2 different diagnostic groups simultaneously—*e.g.*, "anxiety neurosis" and "alcoholic."

ence that the effects of the treatment are not primarily due to suggestion. For the 100 patients the total number of CO_2 treatment sessions was 2,534, but many received 2 or occasionally 3 treatments at certain sessions. In comparing the 3 groups it is interesting that the median average number of treatments in all 3 classes—"Much Improved," "Improved," and "Unimproved"—was surprisingly similar (21, 20, and 18, respectively).

Some patients showed a favorable response with as few as 8 treatments while others required over 100 for satisfactory results. Because of his not infrequent apprehension it has sometimes been difficult to get the patient to take an adequate number of treatments. This fear of treatment usually represents an externalization of his own anxiety and can often be satisfactorily handled by psychotherapy.

SUMMARY

CO_2 inhalation therapy produces favorable effects in a variety of neuroses and psychosomatic conditions, especially in anxiety states, phobic reactions, certain ill defined tension states, and conditions like spastic colitis and migraine headaches. It cuts across diagnostic boundaries, but is of little value in psychoses and firmly established obsessive-compulsive states. CO_2 therapy lends itself peculiarly well to correlation with and facilitation of psychotherapy of the modified analytic type.

Healing mechanisms are not too clearly understood, but a breaking up of pathologic reverberating circuits in the nervous system seems to be an important action of CO_2. Perhaps equally important is the abreaction of repressed emotional "material" that tends to be released by the inhibition of the higher cortical centers during the inhalations. The suggestive effects of CO_2 are minimal and transient and play little part in the healing process.

As a rule it is desirable for the therapist himself to undergo at least a brief series of CO_2 inhalation treatments. The subjective experiences so produced sharpen his awareness of the preverbal feelings that are often released by the action of the gas and greatly enhance his capacity to aid the patient in coming to grips with unconscious feelings brought close to the surface toward the end of the treatment.

Over a 4-year period a total of about 7,500 CO_2 treatments have been administered by the author to a series of 290 patients. Evaluation of the clinical results of the first 100 patients, who seem representative of the total group, reveals that 42% may be classified as "Much Improved," 39% as "Improved," and 19% as "Unimproved."

CO_2 narcosis therapy may thus be considered an important method of treatment for various types of neuroses and psychosomatic conditions. In many cases it is of therapeutic benefit by itself, but usually it is most effective when integrated with psychotherapy.

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DISCUSSION

DR ALBERT A. LAVERNE (New York City).—Since Dr. Moriarty reports on experimental or treated cases only and describes no formal control studies, it is difficult to evaluate his results with scientific accuracy.

He utilizes psychotherapeutic procedure with CO_2 therapy in the majority of his 66 reported cases. Accordingly the title of his paper should more appropriately be, *An Evaluation of Psychotherapy with Ancillary Carbon Dioxide Therapy,* rather than, *An Evaluation of Carbon Dioxide Therapy.* In other words, it is not possible from Dr. Moriarty's reported study to evaluate quantitatively the clinical results of his study whether such clinical results be attributed to psychotherapy, CO_2 therapy, or both.

The point may be raised that it is not possible to achieve such a high percentage of improvement (82%) by the use of psychotherapy alone, and I should like to point out that some enthusiasts have reported an even higher percentage of improvement with psychotherapy alone.

Dr. Moriarty does not include in his experimental study 9 cases who received 1 or 2 treatments only but on account of apprehension failed to return to complete the series. If these 9 cases were considered to be failures, then from the conservative point of view his 82% improved would be reduced to 68% which more closely corroborates the percentage improvement reported by L. J. Meduna and others.

I recognize the difficulty that Dr. Moriarty encountered in using only private patients, since as a physician he has a primary obligation to utilize every beneficial facility to expedite recovery. At the same time however, because of these difficulties in reporting on private patients there is an inherent weakness in scientifically validating results.

It would have been a valuable supplement to have had psychological studies on the 66 cases. Dr. Moriarty describes in detail 66 treated cases and implies that comparable results were achieved in a larger undefined group of 213 patients. We can not accept such inference for scientific validation unless more complete details are forthcoming in this larger group.

We have been conducting an extensive CO_2 research study at Bellevue Psychiatric Hospital, New York, for the past 2 years. We have used this therapy in 2 different techniques. We were able to obtain at most 55% clinical improvement for a follow-up of 12 months, by using the LaVerne Rapid Coma (single breath) technique on 50 unselected patients. The results in a group of 10 control patients treated with 100% nitrous oxide spiked with carbon dioxide until coma was induced showed only 20% improvement. There appeared to be no significant influence in the over-all results whether the patient had previously received or was concurrently receiving psychotherapy.

Since one-fourth of Dr. Moriarty's 66 treated cases had received psychotherapy unsuccessfully for several months prior to CO_2 therapy, this seems to demonstrate an inferred control and a favorable trend of clinical improvement in this group.

It is suggested that Dr. Moriarty enlarge and establish a more scientific control group before a final evaluation of his larger group of patients is made.

MENTAL AND ELECTROENCEPHALOGRAPHIC CHANGES FOLLOWING INTRAVENOUS BARBITURATES IN ORGANIC DISEASE OF THE BRAIN[1]

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It is the purpose of this study to examine the relationship, if any, between the electroencephalographic effects and mental changes induced by intravenous barbiturates in patients with structural disease of the brain.

Many patients with organic brain disease show defects in memory, orientation, and calculation, tend to deny their illness, and often describe situations that never occurred. On studying the EEG's of such cases, Weinstein, Kahn, and Strauss (1, 2) found that all of them showed bilateral slow-wave abnormalities; when such mental changes were absent, the EEG was either normal or manifested unilateral slow activity. Furthermore, the organic mental syndrome, they discovered, could be induced in patients with organic lesions by giving sodium amytal intravenously. Since disorientation did not occur in normal subjects following sodium amytal, the procedure was suggested as a diagnostic test (3).

Roth (4) also used barbiturates as a means of provoking changes, this time in the EEG. Using patients undergoing electroconvulsive therapy, he reported that high-voltage frontal slow waves appeared after intravenous pentothal in records that were otherwise normal and that such waves did not occur in the same subjects prior to electroshock.

MATERIAL AND METHOD

The subjects were 48 hospitalized patients. Of these, 15 had no evidence of organic disease of the brain and served as controls. The other 33 had indisputable evidence of organic brain disease, including cerebrovascular accidents, chronic alcoholism, traumatic encephalopathy, neoplasms, and other lesions. Cases in which the presence or absence of organic brain disease could not be determined with certainty were not included.

With the EEG running continuously, the patients were interviewed according to a prepared form, before, during, and after the intravenous administration of 2.5% sodium amytal. The injections were made slowly, not exceeding 50 milligrams per minute, and rarely that fast.

Each patient was given the drug until he either became disoriented or was no longer able to respond intelligibly, usually to the point of sleep. The questions dealt with details of orientation, including exact location, date, and time of day, and attempted to bring out denial of illness or confabulation. The questions asked included all those relating to orientation and denial of illness used by Weinstein and Kahn in their investigations (1, 2, 3).[2]

RESULTS

NORMAL SUBJECTS (15 CASES)

All the EEG's were normal prior to amytal. After the injection, all showed diffuse, symmetrical fast activity and no other changes (except drowsiness and sleep as these came on). The fast activity was usually of the same frequency as the patient's fast activity (if any) before the amytal was given—usually between 15 and 25 cycles per second. The electrical activity normally associated with sleep was also altered by the drug, so that spindles and slow activity were less prominent or absent.

ORGANIC BRAIN DISEASE (33 CASES)

Normal Records (12 cases).—All but one of these 12 subjects showed changes indis-

[1] From the Department of Neurology and Psychiatry, New York University College of Medicine, the Third Division of Neurology and Psychiatry, Bellevue Hospital, and the Department of Neurology, The Mount Sinai Hospital, New York.

[2] Denial of illness was defined, for the purposes of this study, as the verbal denial of an obvious defect, such as paralysis of an extremity, blindness or incontinence of urine (5). Some patients denied any sickness, even though they lay helpless in a hospital bed.

tinguishable from those occurring in the normals. The remaining patient showed marked asymmetry of the fast activity, which was nearly absent over the affected hemisphere.

Abnormal Records (21 cases).—The most frequent change consisted of the reduction or disappearance of the slow activity previously present. The effect in such cases was to produce an EEG approaching that seen in normal subjects after amytal. In some it was indistinguishable from the records of normals. An example of this type of alteration is shown in Figure 1. Diffuse fast activity appeared, as in the normal subjects, and the slow activity associated with sleep was suppressed. Even with extremely drowsy patients there was little or no slowing.

Asymmetry of the induced fast activity occurred in 2 records. Both patients had focal lesions of the cerebral hemispheres. Fast activity failed to appear on the diseased side in one case and in the other there was a difference in the frequency of the two sides, the abnormal hemisphere having the slower rate.

In cases where there was generalized slowing with focal accentuation, the diffuse abnormality was abolished first, making the focus more evident by contrast. As more drug was given, the focal slowing also disappeared.

Scattered cases showed diffuse slowing after amytal, not previously present or, in one case, the appearance of focal slowing in a different location from a pre-existing focus. It was impossible from the record to distinguish the diffuse slowing from that resulting from drowsiness, and it disappeared upon arousal.

A comparison was made of the records in 35 patients who were clear before amytal in an attempt to see whether the development of disorientation was related to the EEG changes induced by the drug. Of the group that remained clear after amytal (19 cases) the record did not change (except for the fast activity) or became less "abnormal" (the amount of slow activity was reduced) in all but two cases. In these it became more "abnormal" (there was more slowing). The group that became disoriented (16 cases) showed no change or "improvement" in 14 cases. The remaining 2 showed more "abnormality." There is no significant difference between these groups. Likewise, disoriented subjects who became more so after amytal

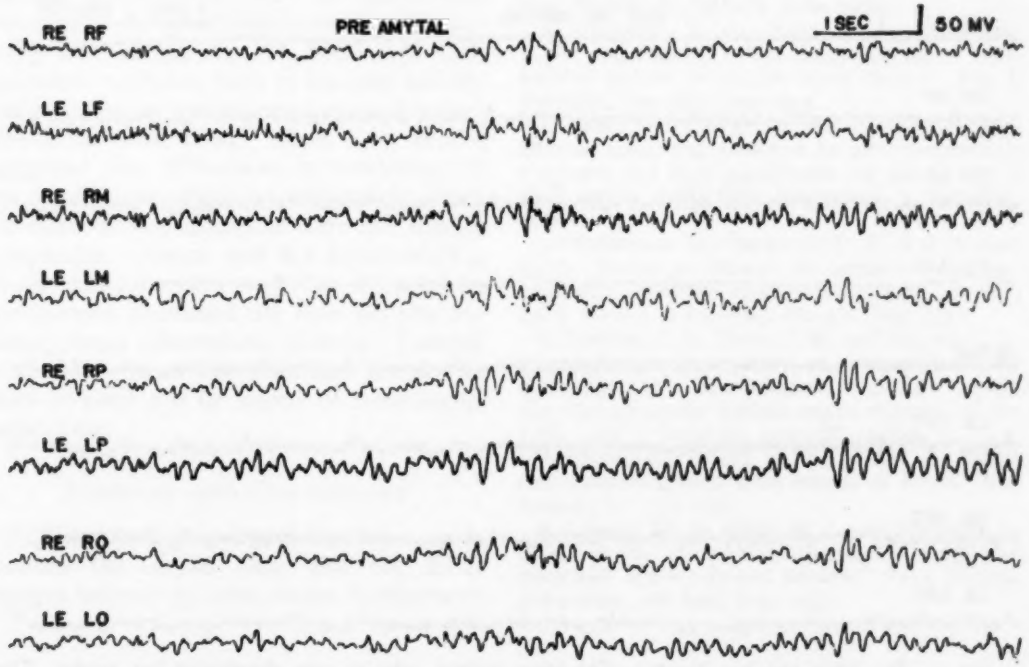

FIG. 1.—A. Before Amytal.—This patient, aged 72, had evidence of diffuse cerebral vascular disease but was clear prior to administration of the drug, There is a basic 6-7-per-second rhythm throughout with 3-5-per-second activity superimposed.

showed the same "improvement," with occasional exceptions.

As for the effect of amytal in confirming the diagnosis of organic brain disease, it was noted that 26 out of the 33 patients were disoriented at some time, 10 before and 16 after amytal was given. None of the control subjects became disoriented.

The amounts of amytal used varied considerably (from 175 to 700 mg), but there was no difference in the doses necessary to induce disorientation and those failing to produce it, but which resulted instead in sleep or lack of cooperation.

Discussion

These data indicate that there is no reliable relationship between the mental changes induced by intravenous sodium amytal and the effect of the drug on the EEG, nor is there any satisfactory correlation between organic brain disease and the response of the normal EEG to intravenous barbiturates. In general, when a patient with a brain lesion showed clinical evidence of declining cerebral function, his EEG showed less of what is called "abnormality" or else behaved the same way as in normal subjects. Several possibilities suggest themselves: (1) the EEG (as we know it) reflects a different aspect of cerebral function from that indicated by the mental status; (2) *absence* of slow activity in the EEG is an important correlate of cerebral abnormality, difficult to assess for obvious reasons; or (3) the fast waves induced by barbiturates are so prominent that they interfere with the appearance of slow activity, either at the scalp or in the apparatus. The first two are probably both concerned and they may or may not be resolved by the application of more refined methods of brain wave detection and registration. The third possibility seems unlikely, since in many cases the fast activity was not of high voltage. Furthermore, barbiturate-induced fast activity did not prevent the appearance of slowing associated with unconsciousness in patients studied, for example, during anesthesia.

It is tempting to compare this behavior with denial of illness itself. In anosognosia, as the brain disease progresses, the patient may deny enough symptoms to appear actually "better." In our patients, under the in-

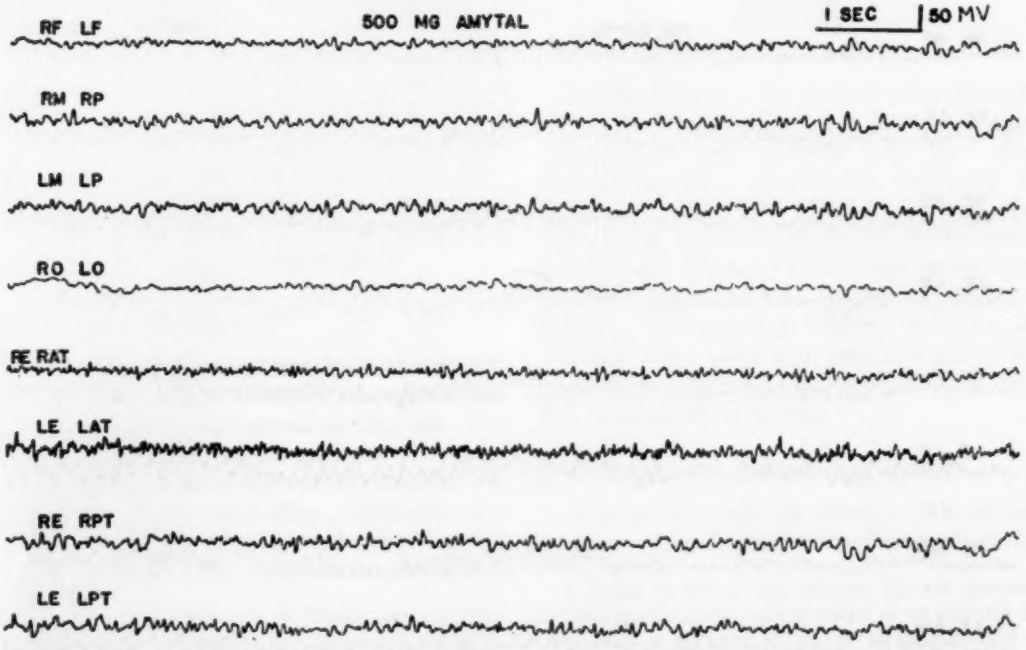

Fig. 1.—B. After 500 mg Amytal.—The same patient, who is now disoriented but awake. The record shows a nondescript combination of low-voltage fast activity; the slow waves have disappeared. (Note: Same amplification as in above figure but somewhat different leads.)

fluence of a drug that produced increasing cerebral dysfunction, the "abnormal waves" disappeared and the EEG looked "better." Similar abolition of slow waves, of course, is seen in deepest sleep, anesthesia, and in near-terminal coma.

In some cases, focal changes were emphasized by giving intravenous sodium amytal, chiefly by the suppression of superimposed diffuse slowing and by the asymmetrical appearance of fast activity on the two sides.

The results were consistent with those of Weinstein and Kahn in regard to disorientation produced by amytal in patients with organic brain disease. Seventy per cent of the abnormal subjects who were clear before amytal became disoriented, whereas none of the control subjects did as a result of the drug.

Gottlieb, Knott, and Kimble(6) reported that electroshock therapy changed the type of fast activity that ordinarily results from intravenous barbiturates. Before treatment, barbiturates induced prominent fast activity with the usual frontal accentuation. After electroshock, the fast activity was less prominent throughout, and the fronto-occipital gradient was destroyed, the fast activity appearing equally everywhere or accentuated posteriorly. Although this seemed to be generally true in our records, there was such individual variation, both in normals and abnormals, that no conclusions were warranted. The disagreement with Roth's(4) results suggested that differences in conditions of the experiment might be responsible, since the methods and materials were not strictly comparable. Alemá and his associates(7), on the other hand, found that intravenous barbiturates decreased the slow activity resulting from electroshock therapy. Lennox *et al.*(8) reduced the abnormal activity in cases of petit mal by means of intravenous barbiturates.

Summary and Conclusions

1. Simultaneous comparisons were made between the mental state and the EEG changes induced by intravenous barbiturates in subjects with and without organic brain disease.

2. Normal subjects did not become disoriented following intravenous sodium amytal and the EEG effects were the same as those noted by others.

3. Although disorientation often followed the drug in subjects with structural lesions and normal records, the EEG changes were not different from those occurring in controls. In abnormal records, there was a reduction or disappearance of slow activity after the drug concomitant with the development of an organic mental syndrome.

4. Focal abnormalties were occasionally elicited, or, if previously present, accentuated by the drug.

5. Under the conditions of the experiment, the mental state did not parallel the state of the EEG. Possible reasons for this discrepancy are discussed.

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A CRITIQUE OF PSYCHIATRIC AND PSYCHOLOGICAL RESEARCH ON INSULIN TREATMENT IN SCHIZOPHRENIA[1]

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Since the day in 1932 when Sakel(8) first announced the use of insulin coma as a new treatment for schizophrenia, insulin shock treatment, hereafter referred to as IST, has been the focus of a great deal of clinical investigation and much discussion. This paper is essentially a critique and attempts to discuss certain methodological problems relevant to psychiatric and psychological research with IST and to assess the current status of IST, 20 years after Sakel, with some suggestions for further research.

Any attempt to evaluate the considerable psychiatric literature dealing with IST in schizophrenia is complicated by a seeming lack of research sophistication, as evidenced by such problems as:

(1) Unstandardized criteria for the initial selection of patients for IST. Frequently, acute and chronic cases are mixed into the same group, thereby contaminating the findings.

(2) Unstandardized criteria for the assessment of changes in clinical status and the general neglect of reporting concomitant physiological observations make it difficult to evaluate studies by different investigators.

(3) Failure to use properly matched control groups to gauge the importance of factors other than IST. Not infrequently summaries are too gross to permit adequate comparisons.

(4) Reporting conclusions either without stating the period of time elapsed between completion of treatment and assessment of clinical status or without awaiting results from an adequate follow-up study.

While the intuitive insights of the practicing clinician have on numerous occasions opened new vistas in the understanding of individual dynamics, such material has only infrequently been stated in a way designed to contribute to over-all theoretical formulations. There also remains the constant danger of value judgments and of other sources of error distorting clinical ratings of improvement.

There is a wide variation in the literature on remission and recovery rates, ranging from 88% to no observed improvement. Kalinowsky and Hoch(4), whose volume is the most widely quoted textbook for the study of the shock therapies, state that "the upper limit of what can be achieved with present day methods" is a remission rate of 40-50%. The outlook is qualified, however, by the comment that "the long range picture in insulin treated schizophrenics is far from satisfactory." In other words, the rate and degree of improvement are directly related to the maintenance of improvement over time.

It is perhaps indicative of the shortcomings in IST research as well as the lack of time and funds available that in 20 years of work with IST, there has been only one control study, reported in the literature, comparing the relative efficacy of brief psychotherapy, insulin coma, and electric shock in the treatment of schizophrenia. Gottlieb and Huston(2), whose highly original investigation was in the nature of a pilot study, noted no significant differences between any of the 3 methods in terms of follow-up evaluation. Similarly, there has been only one study comparing the effect of insulin *per se* with possible therapeutic gains derived from the extra care and attention usually accompanying IST. Notkin, Niles, DeNatale, and Wittmann(5) found no significant differences in remission rates between a group of patients given IST and another group of patients who received saline injections, with all other treatment variables held constant. In view of the great need for more control studies in the investigation of treatment procedures, it would be most desirable if both of these research projects could be repeated.

What conclusions, then, may be drawn

[1] From the Western Psychiatric Institute and Clinic, University of Pittsburgh. Paper presented before the American Psychological Association, 1953, Cleveland, Ohio.

concerning psychiatric evaluation of IST? In his 1952 review, Wilcox(10) noted that "many experienced clinicians reiterate that insulin coma treatment is the treatment of choice for most schizophrenics." On the other hand, a 1950 survey by the Group for the Advancement of Psychiatry(3) observed that psychiatrists who have devoted themselves to the psychotherapy of schizophrenic patients express the opinion "that appropriate psychotherapy is productive of more lasting and sound results." Much effort has been expended, but as Bellak(1) commented "no real conclusions can be drawn. There is much bias, much personal conviction on one side or another, but the objective data are mostly lacking."

PSYCHOLOGICAL STUDIES

Most of the psychological studies reported in the literature were initiated in clinical settings and may be roughly divided into 4 major groups:

(1) Observations and examinations of patients before insulin injection and immediately after awakening from the hypoglycemic state.

(2) Evaluation of changes in test performance before and after IST, utilizing both nonprojective and projective techniques.

(3) Studies aimed toward the establishment and validation of prognostic test indicators, and

(4) Investigations of possible deteriorative side effects of IST.

It should be stated, quite candidly, that many of the psychological investigations are "test-oriented" and contribute little to the over-all understanding of IST. Many of the shortcomings previously attributed to psychiatric research are equally valid criticisms of test-oriented research. All too frequently control groups were not used and the statistical procedures employed leave serious doubts about the results obtained. Furthermore, in most of the published studies, psychologists have usually given more attention to measuring changes than to testing significant hypotheses leading to a more basic understanding of the psychological processes involved in IST.

(1) Psychological studies made immediately before and after coma tend to substantiate the observations of most clinicians, namely, that as consciousness becomes clouded, regressive modes of behavior do occur in some patients. It seems reasonable to conclude, on the basis of the literature, that IST has definite physical effects, some of which may be traced by specific performance tasks until the coma stage is reached. The patient loses his capacity for optimal effectiveness and regains that ability only slowly after awakening from insulin coma.

(2) Attempts to evaluate changes following IST with nonprojective techniques have employed primarily tests of intelligence and concept formation. The literature cites about 10 studies in this area but the results reported do not offer conclusive evidence. There is some question whether reported gains in I.Q. may be due to practice effects, and even whether the gains are as great as might be expected if the practice effect in untreated patients is considered. The data reported are group findings and tend to distort individual performances and possible loss of capacity in some patients. A fresh approach, utilizing alternate test forms for the control of practice effects, may yield more conclusive evidence than is presently available. Published reports of changes in personality as measured by projective techniques, following IST, have relied exclusively on the Rorschach test. Aside from the extensive, long-term investigations by Piotrowski(7), which were directed primarily to the problem of prognosis, there are fewer than 10 studies in the literature. The findings reported are not in general agreement. This stems, at least in part, from the difficulty of comparing Rorschach ratios, which themselves fluctuate with the total number of responses. Again, individual data tend to be distorted when group material is pooled. Thus, while the Rorschach protocols of some patients did reflect the clinical improvement reported by the therapist, other patients considered "cured" still showed much evidence of schizophrenic thinking.

The question might well be asked: what kinds of changes should be expected from projective techniques in before-and-after studies? It seems somewhat naïve at this stage of research to seek specific significant quantitative changes in certain Rorschach

categories when the total number of responses obviously influences both the qualitative interpretation and the statistical significance of any scoring category. Is it appropriate to group data when the patient populations may differ on a wide range of variables? Is it not time to reorient research in terms of personality theory, working with specific hypotheses, rather than continue a seemingly endless search for empirical "facts" that are not especially enlightening in and of themselves?

(3) Attempts to elicit and validate psychological test signs as prognostic indicators for IST rest on the hypothesis that if pre- and post-treatment test findings correlate highly with independent clinical evaluations of a group of patients, then it should be possible to predict with relatively fair accuracy the probable result of IST in similar patients on the basis of pre-treatment test data.

As has already been noted a great deal of the work on prognosis has been pioneered by Piotrowski(6). His studies have been criticized on the ground that they were not actually predictive, but rather retrospective investigations in which intial findings were analyzed in the light of subsequent results and follow-ups. While Piotrowski's prognostic suggestions have been largely *post hoc*, the real value of his contributions would seem to depend on their practical clinical usefulness in repeat experiments by others. This, unfortunately, has not been done to an extent sufficient to permit valid conclusions.

(4) Investigations of possible deteriorative effects of IST by both nonprojective and projective techniques have, so far, not yielded any conclusive evidence, one way or the other. One reason for the lack of conclusive data is that group studies tend to obscure individual findings. Thus, patients with rich personality resources offer the most fertile prospects for loss in responsive capacity, as measured by psychological tests, and may actually show up poorer after IST even when improvement has been noted clinically. Most important, however, long-term follow-up studies designed to measure possible deteriorative effects, while controlling practice phenomena, have not yet been reported.

It is a rather curious phenomenon that the literature on psychological investigations of IST does not yield a single intensive study which attempts to follow a small sample of schizophrenic patients through a course of IST under highly controlled conditions. There have been no published reports of experiments designed to test specific or general hypotheses relative to the psychological meaning of IST. It would appear then that after 20 years of opportunity for research, IST still continues to offer a major challenge.

Summary

After twenty years of research with insulin treatment in schizophrenia the published evidence is inconclusive and contradictory. Wide variations in remission and recovery have been reported but the number of published control studies is meagre. Psychological tests yield no definitive data on prognosis or the effects of treatment. Insulin treatment in schizophrenia continues to pose a major challenge to research.

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PSYCHIATRY IN AND AROUND ST. LOUIS

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SAINT LOUIS, MO.

Medicine in St. Louis has a distinguished history. Its fame began when Beaumont entered practice here in 1833. This was shortly after he had published his classic "Experiments and Observations on the Gastric Juice and the Physiology of Digestion." He became the first Professor of Surgery at the newly founded St. Louis University. After Beaumont's death, progress in medicine slowed down. Many medical schools were organized, but they lacked both money and personnel, and some were "diploma mills." After many failures and mergers, two medical schools have survived. Washington University Medical School is a privately endowed nonsectarian institution, and St. Louis University Medical School is the largest Catholic medical school in the U. S. The modern era for St. Louis medicine dawned when in 1909 Robert Brookings undertook the reorganization of Washington University Medical School and later directed its development along the lines recommended by Abraham Flexner. Not long after this, improvements were made in St. Louis University Medical School. It is not possible in this brief paper to enumerate the many people and the many areas in which outstanding contributions in medicine have been made. Five of these great investigators have been awarded Nobel Prizes. Of interest to psychiatrists is the fact that Erlanger and Gasser were Nobel Prize winners as a result of their research on nerve impulses. This tradition of brilliant neurophysiological and neurological research is being continued by their successors.

Psychiatry had its beginnings with Dr. W. W. Graves and his investigation of the constitution and mental disease. Drs. Sidney Schwab and Borden S. Veeder pioneered in the field that we now call pediatric or children's psychiatry, and Malcolm Bliss was the pioneer in the field of mental hospital care and was an important leader in the educational process that led up to the building of the psychopathic hospital associated with the St. Louis City Hospital. This has been named the Bliss Psychopathic Institute. It is noteworthy that these great advances in scientific medicine were made largely by privately endowed medical schools and hospitals. An important exception is the St. Louis City Hospital which has been an important center of clinical teaching for the 2 medical schools.

The growth of psychiatry in this region is well exemplified by the growth of the Central Neuropsychiatric Association, which was founded in St. Louis in 1922. The meetings are held in rotation in the member cities. For the first 15-20 years, the membership was small and congenial. It met once yearly, each center of psychiatry taking its turn as host. The pleasant informal quality of these meetings was one of their great attractions. In more recent years, the society has grown so rapidly that it has had to limit its membership; and, even with its limitation, it is no longer the small congenial group that it formerly was. There are now many more nonmember psychiatrists than there are members. With this increase in psychiatrists, there are now active state neurological and psychiatric societies, and in addition there is the Mid-Continent Society.

The private practice of psychiatry has increased enormously, particularly in cities like Kansas City and St. Louis, and great improvement in psychiatric facilities in each of these cities has resulted.

DEVELOPMENT OF PSYCHIATRY IN ST. LOUIS

It is noteworthy that institutions for the care of patients with mental disorders were founded in St. Louis many years before the medical schools participated actively in training physicians in this field. The Alexian Brothers Hospital, a Catholic institution which cares for mental patients as well as others, was founded in 1869. The St. Louis State Hospital, formerly operated by the city, was also founded in 1869. St. Vincent's Hospital, a Catholic institution for the care of short-term mental illness, was founded in 1858.

When Washington University was reorganized (1909-12), departments of medicine, surgery, and pediatrics were staffed with a nucleus of full-time members. Psychiatry was not recognized, however, until many years later when in 1938, with the aid of a grant from the Rockefeller Foundation, a full-time department was established. Previously, the school had given very little time to psychiatry and depended entirely on volunteer teaching by psychiatrists in private practice. St. Louis University has not yet recognized psychiatry sufficiently to give it support necessary to make it a major department in the school.

The new department of neuropsychiatry at Washington University began auspiciously in 1938 with Dr. David McK. Rioch as head, Dr. John Whitehorn as professor of psychiatry, Dr. Rioch as professor of neurology, and Dr. Carlyle Jacobsen as professor of medical psychology. Under these men it was possible to begin adequate instruction in psychiatry for medical students as well as residents. Many kinds of research were begun. The problem of the shortage of personnel in this field is well exemplified by the fact that these men had scarcely organized their research and teaching programs when they were attracted elsewhere. Dr. Whitehorn became professor of psychiatry at Johns Hopkins, Dr. Jacobsen dean of biological sciences at Iowa University, and Dr. Rioch became director of research at the Chestnut Lodge and the Walter Reed Hospital in Washington, D. C. Dr. E. F. Gildea succeeded Dr. Whitehorn in 1942 and has been most fortunate in securing the aid of able associates to carry on the work in neurology, psychiatry, psychosomatic medicine, clinical psychology, and children's psychiatry. An inpatient service of 54 beds was opened in January 1943 in McMillan Hospital which is part of the Barnes Hospital and Washington University Medical Center. Neurophysiology and neurology have a long tradition of important research that began with Drs. Erlanger and Gasser and is being continued under Drs. George Bishop and James O'Leary. In addition the division of psychosomatic medicine has made contributions both in research and teaching under Dr. George Saslow. An important advance has been made in developing microchemical techniques for the study of the nervous system under the leadership of Professor Oliver Lowry in pharmacology in collaboration with Drs. Eli Robins and David Smith representing psychiatry and pathology.

Considerable progress has been made in the care of psychiatric patients by both the muncipal and privately endowed agencies. At the City Hospital the new psychopathic hospital named after Malcolm Bliss was built in 1937. This hospital was designed to accommodate fewer than 200 patients. Ample space for outpatient clinics and for research laboratories was provided. Thus, every building facility was provided to make possible a modern diagnostic, treatment, and research center for psychiatric patients. Unfortunately, the city has never been able to provide an adequate budget. Research work has been accomplished only with aid of short-term grants from outside agencies. In addition, it has been impossible to prevent overcrowding. This has been due to the fact that all facilities for the care of the elderly, seriously ill patients are overcrowded. Over 30% of the patients are now over 65, and many of these have been in the Bliss for 1-2 years. In spite of these handicaps, a research laboratory has been developed at the Bliss. It is equipped for neurophysiological investigation. At present, the changes produced by the various kinds of shock and coma therapy, including effects of photic driving, are being studied. Dr. George Ulett is the director of this laboratory.

OUTPATIENT SERVICES

The St. Louis Health Department, directed by Dr. J. Earl Smith, has recently taken over the old Municipal Mental Hygiene Clinic which was one of the original Commonwealth Fund Clinics started here in 1922. This clinic is now a part of the 2 new health centers that have been built by the aid of gifts from David P. Wohl.

In St. Louis County there is a well-constructed general County Hospital closely affiliated with the Public Health Center. The Health Commissioner, Dr. Herbert Domke, has encouraged the development of a mental health program in this Health Department. This consists of a child guidance clinic and a

broad school-centered program offering services of a mental health consultant on a contract basis to individual school districts. Mr. Alfred Buchmueller is director of the mental health program. Miss Marguerite Cannon is chief psychiatric social worker. Psychiatric consultation and treatment are provided by part-time consultants. In its school-centered program, this division is also developing various types of group therapy with parents of children exhibiting behavior problems and with groups of school children themselves. The mental health consultants in the schools are psychiatric social workers and psychologists.

The effectiveness of the St. Louis County Mental Health Program is being evaluated by a research project supported by a grant from the U.S.P.H.S. Principal investigators are Herbert Domke, M. D., Margaret Gildea, M. D., Ivan Mensh, Ph. D., John C. Glidewell, Ph. D., and A. D. Buchmueller, M. S. The effect of the professionally led, school-centered consultation and group therapy method, and the discussion groups with lay leaders is being studied. Changes in the attitudes of parents and the behavior of their children are the criteria used. The effects of these methods used together and separately are being compared.

The St. Louis Mental Health Association is a comparatively new organization, supported at present by the Community Chest, to provide mental health education in Greater St. Louis. This association was formed in 1950 by the union of two older societies, the St. Louis Mental Hygiene Society and the Council for Parent Education. It has developed a program of mental health education for parent groups. Discussion methods are used with an audio-visual tool, either a film or skit, to act as a stimulus. The discussion leaders are lay people who have been trained by the Mental Health Association's workshops in leadership techniques and group dynamics.

A Child Guidance Clinic, an outgrowth of the clinic begun in 1928, was reorganized in 1948 as a division in the medical school. This reorganization was financed by a grant from the Children's Research Foundation of St. Louis. It is called the Washington University Community Child Guidance Clinic. This clinic has close affiliations with the George Warren Brown School of Social Work, a division of the University, with the School of Education, the department of pediatrics, the department of psychiatry, and the department of psychology. It is designed to be a teaching and service center. The service is financed by the Community Chest, and the teaching functions are supported by the medical school. Dr. Philip Starr is the present director. Also in informal association with this Child Guidance Service is a residency center for disturbed children called the Forest Park Children's Center. This was started by the Junior League but has recently been accepted by the Community Chest.

It should be noted that all of these outpatient psychiatric services are small and are inadequate for the needs of the community. The history of their finances is a chequered one. During the depression of 1932 and thereafter, the Municipal Clinic and what is now the Washington University Community Child Guidance Clinic practically went out of business. After the depression the private charities were reorganized under a Community Chest and a Social Planning Council. This has improved and stabilized finances; but psychiatric services, and particularly those for children, being comparatively new still receive only token support.

Medical education has been entirely dependent on gifts of individual donors and private foundations like the Rockefeller, Commonwealth, and Markle. Neither the state, the city, nor the Community Chest has understood the value of aiding medical education and particularly postgraduate training. The result is a serious shortage of personnel for all public health facilities. Trained psychiatric personnel of all kinds are especially deficient in this area. The recent efforts of the Federal Government to aid medical education and health services has been grudgingly accepted by the State of Missouri. However, the little money that has come through has helped a great deal. Furthermore, the direct grants from the U. S. Public Health Service for research and special training fellowships have proved invaluable. Unfortunately, all of these grants are on short term, usually on a yearly basis. Consequently, a great deal of the time of the directors and

deans of the clinics and schools is taken up with financial problems that they are ill-equipped by training to solve.

Psychoanalysis has been slow in developing in St. Louis. Its first representative was Dr. E. Van Norman Emery who became professor of social psychiatry in the George Warren Brown School of Social Work of Washington University in 1936. He also aided in teaching in the Medical School and conducted private practice. His death in 1953 was a great loss to the school and to the community. At present there are 4 psychoanalysts in St. Louis. They all participate in teaching residents and in consultation to the Washington University Child Guidance Clinic and in other agencies.

The allied specialties of psychiatry can be only briefly mentioned. The Missouri School of Occupational Therapy was formed in 1919. Its permanence was ensured in 1938 by the Rachel Stix Michael bequest endowing a chair in occupational therapy in Washington University. Under the guidance of Miss Geraldine Lermit, the school became one of the leading schools of occupational therapy. In 1947 the school was made a division of Washington University Medical School. A division for postgraduate training in psychiatry for nurses was established at Washington University School of Nursing in 1948. This has been aided by a training grant from the U. S. Public Health Service. The George Warren Brown School of Social Work is one of the leading schools in its field, owing in large part to the outstanding ability of Professor Frank J. Bruno and, in more recent years, Dean Benjamin Youngdahl.

We can conclude that psychiatry has made considerable progress in St. Louis since the last meeting of the A.P.A. in 1936, when a similar article was written by Dr. Leland B. Alford. Much remains to be done, such as developing outpatient facilities in connection with our state and city institutions, and children's psychiatric services for schools and courts, attracting and training personnel, and finally finding financial support for research over a long-term period.

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THE STATE HOSPITAL SYSTEM OF MISSOURI

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The State Hospital system in Missouri is one of the oldest in the country. The first state hospital was established at Fulton, in 1847, 27 years after Missouri was admitted as a state. This was the first mental hospital west of the Mississippi River. Other hospitals were built at St. Joseph in 1874, Nevada in 1886, Farmington in 1899, and the Missouri State Training School at Marshall in 1899.

In St. Louis City, due to an unusual corporate development, there is complete independence of any county jurisdiction, the city being a separate political entity. The city built its own hospital for the mentally ill in 1868 and operated it independently of the state system for many years. It established its own training school for the retarded in 1924. After World War II these institutions were incorporated in the state system.

The original construction of all hospitals except Farmington was on the Kirkbride plan and the original buildings are still in use. Farmington started out as a "cottage plan" and has continued as such. Each new hospital was built to take care of needs resulting from population growth. This policy was changed and during the depression years, as part of the National Public Works program, large additions were made to all the hospitals except in St. Louis. This new construction was in the form of new buildings built on the grounds some distance from the original Kirkbride-type building.

Every hospital is faced with the serious problems of overcrowding as well as having to use antiquated, inefficient firetraps to house sick people.

It was visualized in the 'thirties that the newer buildings, along with others that were planned, would replace all the old ones. The war, however, stopped all new construction and the program was not completed. After the war construction costs had risen so high that the whole program ground to a halt while the political fathers attempted to decide what to do. Instead of construction costs going down as expected while they waited, the Korean War skyrocketed them again and there has been no new construction of great importance since the war.

Missouri state hospitals have passed through all the throes of personnel and political problems which have plagued many other states. While it is true that for almost 100 years Missouri was solidly Democratic, each successive governor came into office as the result of factional fights. Since the spoils system was the order of the day the state hospitals were prize political plums through which loyal workers—both individual and contractual—were rewarded. It was not unusual for 90% of all employees to be turned out when a new governor appointed a new board of control every 4 years. Since the program was essentially continuous treatment, this did not affect patient care to any great extent. Salaries were relatively high, living conditions moderately good, and an above-average class of employees was attracted to the work.

In the area of administration the stewards, who were frequently in the upper political echelons and were placed in office to dispense patronage both to individuals and loyal supply firms, wielded great power. While theoretically the medical superintendent was in charge, the stewards could and frequently did undermine his authority by going directly to the board of control.

The medical superintendents in those early days were always political employees and many, if not most, had had no previous psychiatric experience. This lack of professional training, formal or otherwise, was no great handicap. The medical staffs under the superintendents were adequate in number. In 1907 the medical staff at Nevada was equal in number to that of today, with half as many patients and a medical program of supervision without much active treatment. The program worked well until about 1920.

Missouri is a rather unusual state. It actually is 5 geographical and cultural groups living in one political entity. Approximately one-third of the population live in the St.

Louis area. Kansas City, the second city, and the strip bordering Kansas south of it, are economically and culturally more a part of Kansas than Missouri. In fact, but for accident of legislation, this area would be a part of that state. The people of the northern part of the state think and live like the progressive, prosperous farmers of Iowa; those of the central part along the Missouri River are more Southern in attitudes and politics than in many areas of the former Confederate States of America, while those of the great Ozark uplands, the largest area geographically and the smallest populationwise, have many political and cultural characteristics of eastern Kentucky, eastern Tennessee, and West Virginia whence many of the early settlers came.

It has always been difficult to get the people of the 5 areas to agree on a statewide program and, as far as the state hospitals were concerned, it was especially difficult when St. Louis was supporting its own city sanitarium and was also being asked to support financially the state hospital system throughout the rest of the state. Since many areas of Missouri are desperately poor in cash income, there were always Senators and Representatives opposed to adequate appropriations since, to many of their constituents, $2.00 per day cash for living expenses was almost luxury.

The downfall of the Missouri system was on the rocks of financing. Following World War I prices and wages rose much faster than appropriations and there was a slow disintegration of types of service, caliber of employees, and building maintenance and repairs.

The depression years brought a respite of sorts. Prices and wages fell faster than appropriations, and once more state hospital work became a better than average job and the demand for work exceeded the supply. Superintendents could pick and choose employees. Many good workers who were employed in those days are still in the hospitals, and form the backbone of the pitifully inadequate staffs of today.

Following World War II and then the outbreak of the Korean War, the rapid rise in prices and wages and cost of new construction so far outdistanced appropriations that the fine workers, professional people and other interested parties were left helpless, faced with disintegration of buildings, overcrowding, inability to employ satisfactory replacements in personnel, and no funds to secure adequately trained professional and technical help so necessary in these days of active treatment.

There have been several forward steps in administration. All employees are now under Civil Service. Attendants and nurses' aides, however, are expected to start at a salary below that of prison guards. In fact, this starting salary is about the lowest on the Civil Service schedule. There has been recently a general rise in the entire Civil Service schedule, but psychiatric aides are still at the bottom of the totem pole.

The salaries paid physicians are fantastically low and no younger men have been attracted to the hospitals for some time as permanent members of the staff. The lack of adequately trained staff physicians to act as teachers has seriously affected a residency training program that was one of the better state hospital programs before World War II.

The state has been fortunate, however, in the caliber of the superintendents. All 5 superintendents have been in the system for some time and have performed feats that seem almost like legerdemain, in spite of terrific financial handicaps. At one hospital, with a patient population of over 2,000 and 3 staff physicians in addition to the superintendent, the discharge rate was 72% of admissions and the budget of this hospital called for about $1.75 per patient per day for all operating expenses, including all types of professional services.

Some of the superintendents have been unjustly criticized because they have been expected to provide trained, educated, intelligent, kind, and conscientious ward attendants for $140.00 a month, from which the employee was expected to pay his or her living expenses. This low remuneration made it essentially impossible to employ the right kind of new people. As the result, accidents and incidents have occurred which are certainly to be expected under the circumstances.

But a new day is dawning. A large group of legislators have interested themselves in the situation. They have secured the advisory help of psychiatrists outside of the system and working through proper investigative means have recognized the true situation and are determined to correct it.

Salaries have been raised, but are still too low. In direct opposition to the Governor's recommendation, a bill to increase appropriations passed the House but was held up in the Senate with the Governor's approval. After considerable legislative jockeying, increases were finally obtained but the amounts were still far below the needs.

This group of forward-looking legislators is not through. They are continuing their work and hope at the next session to have so much overwhelming evidence that the only thing wrong with the Missouri State Hospital system is lack of sufficient funds to provide satisfactory humane and modern treatment care, that it is possible there will be a minimum of opposition when increased appropriations are recommended in the next session. Let us hope so.

CLINICAL NOTES

USEFUL ADJUNCTS IN INSULIN COMA THERAPY

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At Cushing Veterans Administration Hospital, and more lately at the Boston Veterans Administration Hospital, over 25,000 individual coma treatments have been given. Here we shall describe three adjuncts to this treatment that we have found to be particularly useful:

1. The bed used is a slightly altered U. S. Army bunk bed. The upper parts of the end posts have been sawed off so that no projections are present on which the patient may hurt himself. Side rails of ordinary plumbers' pipe have been added to which hand-restraints may be tied. The beds are sturdy, do not roll, and are low enough that little harm ensues if the patient should accidentally roll off the bed.

2. A bed-board of 5-ply wood is placed over the spring but under the thin mattress. It is strong enough to give good support, but is still slightly resilient. This board extends over the full length and width of the bed for maximum support. By having the board in place we found that we were able to give the patient an electroshock treatment without having to move him from the insulin treatment bed to an electroshock treatment table. This made handling the patient easier and lessened the risk of electroshock fractures. We soon noted that the patients using these beds seemed to have less excitement moving about during stages I and II of insulin coma treatment, had a more satisfactory coma, and almost no complaints of backaches afterwards. Therefore the use of bed-boards was extended to all insulin coma beds. In effect, this then becomes an orthopedic bed, giving a great deal of support to the vertebral column during coma. Through the cutouts visible in the picture restraint sheets may be secured when needed.

3. On the wall beside each treatment bed is a double clock-face with movable hands. The clock on the left is marked COMA, that on the right is marked FEEDING. As each patient reaches the desired level of coma, the hands of the COMA clock beside his bed are adjusted to the correct time. In this way the busy therapist may keep track at a glance of patients in various parts of the ward. Also the clocks serve as a constant visual reminder of the time when individual patients should be fed. However, in no case should this useful adjunct become a substitute for careful individual supervision. As each patient is fed, the hands of the FEEDING clock are adjusted accordingly. This clock may then serve as a visual aid in checking the recovery period of the patient.

These adjuncts have proved their worth many times over in our experience. They have greatly eased the burdens of those responsible for the care and well-being of the patients while undergoing this type of somatic therapy. Accidents and injuries have been reduced to a minimum. We have not had a single case of fracture, either of an extremity or of the spine, during insulin coma therapy, or during combined therapy, since using bed-boards. In such an exhausting and potentially dangerous procedure as insulin coma therapy, adjuncts and safeguards such as these are of great importance.

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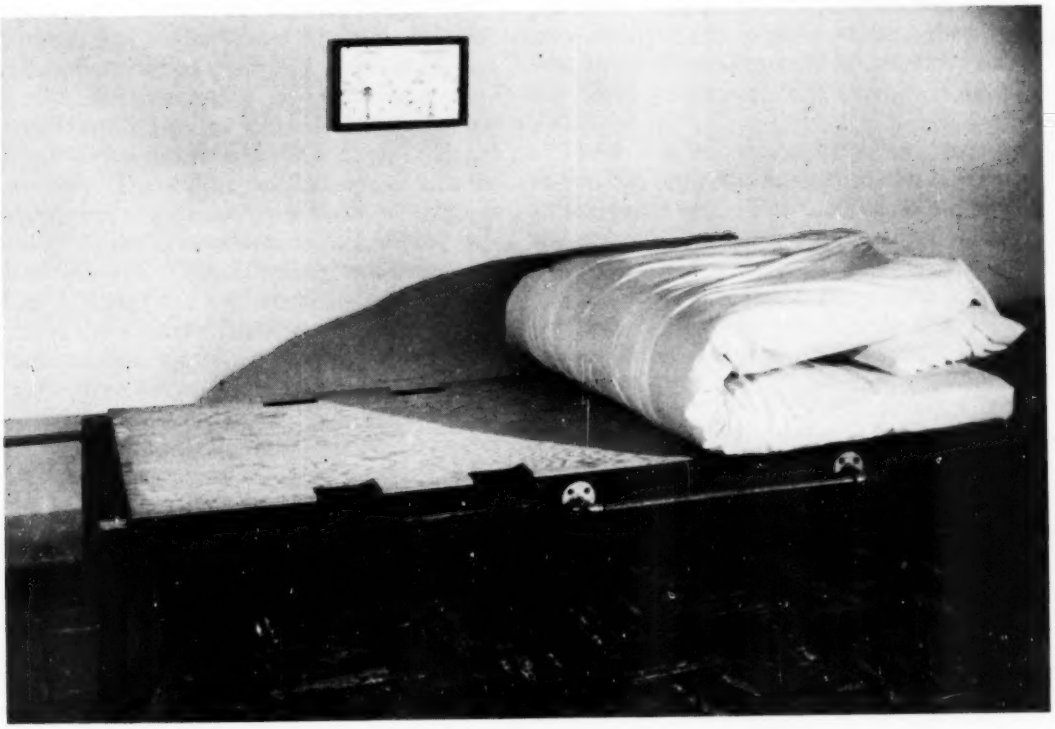

PRELIMINARY REPORT ON THE USE OF METHYLENE BLUE TO TERMINATE AN ANTABUSE-ALCOHOL REACTION[1]

JACKSON A. SMITH, M. D., W. RUGLEY LIVESAY, M. D., AND DON W. CHAPMAN, M. D.[2]

The present paper is the report of the use of methylene blue in 6 patients, in an attempt to modify an antabuse-alcohol reaction. The report of Richert, Vanderlinde, and Westerfeld[3] describing the inhibition of xanthine oxidase in rat liver by antabuse and the ability of methylene blue to overcome this inhibition is the basis of the present study. Their purpose was to determine whether a similar metabolic reaction prevailed in patients, and if the administration of methylene blue would ameliorate or relieve the disturbing physical changes seen in the antabuse-alcohol reaction. The report by Richert, *et al.* also stated that though rat liver xanthine oxidase was inhibited by antabuse, milk xanthine oxidase was not. This difference was explained thus: "either the two enzymes were different, or the antabuse itself was not the enzyme inhibitor, but was converted to an inhibitor by the liver homogenate." The degree of inhibition was quantitative.

The 6 patients tested were examined physically and evaluated psychiatrically before antabuse was administered. Electrocardiograms, bromsulfalein liver function tests, and urinalyses were done. A sensitizing dose of 60 grains of antabuse was given orally over a 4-day period. The patients were then given alcohol until a reaction was initiated. Serial blood pressure determinations, apical cardiac rates, and electrocardiographic tracing were taken during the reaction. The standard and unipolar limb leads and the unipolar chest leads were recorded.

After the reaction was fully established as objectively determined by an increase in cardiac rate, a fall in systolic and diastolic blood pressure, conjunctival injection, and cutaneous flush; a 1% solution of methylene blue was injected intravenously in quantities ranging from 1 to 20 cc. The average dose was 10 cc.

There was no demonstrable improvement in the S-t segment changes in the EEG nor in the pulse rate. The methylene blue gave the individual a bluish discoloration of short duration which altered the color of the erythematous blush but did not dispel it. Subjectively 2 patients stated they felt better and 2 others vomited shortly after the injection was given.

SUMMARY

The reported ability of methylene blue to reactivate xanthine oxidase inhibited by antabuse in vitro has been tried clinically as a means of terminating an antabuse-alcohol reaction. Although there was some subjective relief in 2 patients following the intravenous injection of methylene blue, there was no objective evidence of its altering the antabuse-alcohol reaction in the amounts given. From these results, it seems unlikely that xanthine oxidase is of major importance in acetaldehyde metabolism in vivo; or else methylene blue in this dosage is unable to overcome the inhibition brought about by antabuse, if such an inhibition of xanthine oxidase occurs in the patient.

[1] The material for this study was furnished by Ely Lilly and Company.

[2] From the Departments of Psychiatry and Medicine, Baylor University College of Medicine, Houston, Texas.

[3] Richert, D. A., Vanderline, R., and Weoderfield, W. W. The composition of rat liver xanthine oxidase and its inhibition by antabuse. J. Biol. Chem., 186: 261, 1950.

CASE REPORT

COMBINED INSULIN COMA AND ELECTROCONVULSIVE THERAPY FOLLOWING CARDIAC SURGERY

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There seems to be a progressive decrease in the contraindications, due to physical risk, in the use of electroconvulsive therapy in the treatment of the mentally ill. Before a patient should be denied the possible benefits of electroconvulsive therapy (when indicated after careful psychiatric evaluation), it is important to realize that electroconvulsive therapy is considered, by such well-recognized authorities as Kalinowsky and Hoch(1), as having very few absolute contraindications. They stress that the risks encountered in cardiovascular disease create the greatest problem in deciding whether or not to institute such therapy. Williams and Barrera(2) feel there are few definite cardiovascular contraindications, but believe that (1) congestive heart failure, (2) recent myocardial infarctions, and (3) aneurism of the aorta may be considered absolute risks. Although Rowe, Schiete, and Labree(3) agree with the above contraindications, they state that many patients with moderately severe cardiac disease can successfully withstand electroconvulsive therapy, and report in 14 patients with cardiac lesions only one death resulting from this therapy. This patient had mitral stenosis, mitral insufficiency, auricular fibrillation, history of decompensation, and cardiac enlargement. In a review of English and American literature concerning fatalities following electroconvulsive therapy, Will, Rehfeldt, and Neumann(4), reporting on 33 deaths, indicated that 26 were apparently related to shock. Of these patients, 12 definitely died of cardiac failure, and 2 of respiratory failure.

In this paper, we are stressing the consideration of cardiovascular complications in the use of electroconvulsive therapy because of its more widespread application and availability than insulin coma therapy. However, concerning the cardiovascular risks for insulin therapy, it is necessary to remember that "the risks of treatment are, in general, less than the risks of waiting for a spontaneous remission to occur,"(5) and that this treatment puts an added burden on the heart for a longer period than does electroconvulsive therapy. Therefore, the decision to institute treatment has to be made by considering both the urgency of the mental disorder and the strength of the cardiovascular system.

Because of the remarkable advances in surgery of the heart and the major vessels in recent years, we feel that additional pressures may arise to influence the indications and contraindications for the use of drastic therapy in patients who have endured such procedures. Monke(6) reported a patient, who had a 6 cm. aortic isograft implanted one year earlier for the surgical correction of an aortic coarctation and aneurysm, who successfully withstood 15 electrically induced grand mal seizures. Commissurotomy, the splitting of the mitral commissures for surgical correction of mitral stenosis, is being performed with greater frequency. In June, 1953, Likoff(7) reported that 572 cardiac patients were operated on at the Hahnemann and Doctors Hospitals in Philadelphia, and encouraged an earlier surgical approach to valvular heart disease. It seems possible that the new responsibilities of living after the

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relief of cardiac invalidism, may create conflicts, and that these conflicts will tend to create symptomatology in which the shock therapies will be considered the treatment of choice.

We are reporting a patient, the first, we believe, to receive combined insulin coma and electroconvulsive therapies after a commissurotomy operation.

Case History

The patient, a 28-year-old, married, childless, white female, had, at the age of 18, developed signs of rheumatic fever. There was a slow development of valvular involvement which became progressively disabling. Following this, she had 2 spontaneous abortions, several episodes of pneumonia, and increasing invalidism in the last 2 years, necessitating almost complete abandonment of housework and social activities. She had been digitalized since 1950.

In September 1952 at the Hahnemann Hospital, Philadelphia, a functionally successful mitral valve commissurotomy was performed. However, on October 15, 1952, the patient returned to the hospital with a low-grade fever, chest rash, and fatigue. She was treated with penicillin for suspected subacute bacterial endocarditis, and discharged in 2 weeks, still complaining of fatigue and not feeling well.

On December 27, 1952, she suddenly became overtly psychotic. She was agitated, her behavior was bizarre, and she was delusional. On admission to the Pennsylvania Hospital for Nervous and Mental Diseases, on December 31, 1952, she was autistic, denuded herself, gesticulated with her eyes closed, grimaced, pounded the mattress, smiled inappropriately, and was verbally retarded. She felt that she was in direct communication with God.

Personal history revealed that the patient was the youngest of 7. Little was known of her early life, except that she was quiet and shy. High school adjustment was apparently good, as she was elected class president several times. Following high school graduation, she entered, but failed to complete either nurse's training or Junior College. However, she engaged in office work for 2 years. She was pampered by her father, even after her marriage. Prior to admission, she became preoccupied and much concerned about his imminent remarriage to a younger woman, of whom the patient disapproved. Her feelings were accentuated by the fact that this woman had divorced a cardiac invalid to marry her father.

At the hospital staff conference, a diagnosis was made of schizophrenia, catatonic type. A 2-months' trial of psychotherapy resulted in little change in the patient. Cardiac consultation by Dr. William Likoff on January 19, 1953, revealed a grade II mitral systolic murmur, no mitral diastolic murmur, and no evidence of cardiac failure. It was felt that she was an excellent risk for shock therapy. Since there was lack of improvement, insulin coma therapy was initiated on February 24, 1953. By April 8, 1953, she had had 30 insulin treatments, and 29½ hours of coma without any lasting improvement. Therefore, it was decided to combine the insulin treatments with electric shocks.

When treatment was terminated on May 22, 1953, she had received a total of 54¾ hours of insulin coma and 17 electroconvulsive treatments. Her weight had risen from 105 to 133 pounds. At that time she was free of psychosis. The only complication in treatment was a minor compression fracture of the upper surface of the seventh thoracic vertebra, after the second ECT, but this pathology was not sufficient to stop the treatments. Repeat consultation by the cardiologist on May 6, two weeks prior to the termination of treatment, revealed no change in her cardiac status. She left the hospital 3 days after the last treatment, on May 25, 1953, and was described by her husband as being better than before she became ill.

Follow-up information from her referring psychiatrist, received on June 30, 1953, revealed little change since her discharge. Although her affect remained shallow, there was no evidence of hallucinations, delusions, or disordered thinking, and she had gained some insight.

Conclusion

This paper presents a patient—the first, we believe—who, after cardiac surgery, successfully endured both insulin coma and electroconvulsive therapies. We feel that with the rapid increase in cardiac surgery and the resultant new way of living, other psychotic reactions may develop which will require shock therapies.

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NOTES FROM THE PRESIDENT

POINTS FOR A POSITIVE PROGRAM TO PROMOTE MENTAL HEALTH

KENNETH E. APPEL, M.D., PHILADELPHIA, PA.

The magnitude and urgency of the mental health program in the United States led the Council of State Governments to hold a national Governors' Conference at Detroit, Michigan, in February 1954. In preparation for an address on a program of prevention in mental health, it was necessary to consider this problem in very broad perspectives. Prevention meant forestalling illness. The negative aspects of preventing mental illness immediately involved the consideration not only of the facilities for treatment and reduction of mental illness, but also of wide problems of cultivation, preservation, and improvement of mental health. Many colleagues helped me with my thinking. The conclusions formulated for the development of a positive program for promoting mental health may be of interest to members of The American Psychiatric Association. They are submitted herewith:

NEW ATTITUDES

1. Promote a new, optimistic attitude toward mental health and develop a positive program.

2. Think in terms of treatment and cure instead of custodial care. In hospitals where newer, intensive treatment methods are used, as many as 60% to 70% of patients under 60 years of age are often discharged within a year of admission. Make these facts public knowledge through planned public education. Mental illness is not the unchangeable destiny of germ plasm and heredity. It is no longer necessary to be caught in the coils of futility, pessimism, and hopelessness.

3. Focus on mental health, not so markedly on mental disease.

4. Mobilize community resources for mental health instead of concentrating to such an extent on medical and hospital aspects of mental disease.

IMPROVED MENTAL HOSPITAL SERVICES

5. In mental hospitals emphasize personnel and adequate salaries, not so largely new buildings. Given adequate personnel and facilities, much human suffering and money can be saved.

6. Do not leave the care of the mentally ill to underpaid and inadequate staffs in central state bureaus and in individual state hospitals. Mental illness is a billion-dollar business. American business corporations would not tolerate such a policy.

7. Attract more psychiatrists with greater experience by increased salaries appropriate to a billion-dollar business. This will improve the effectiveness of treatment and discharge rates. Hospitals that have good teaching, treatment, and research programs attract more residents and do a better job. This cannot be done without an adequate budget.

8. Concentrate trained personnel in areas where most effective work can be done.

9. Develop more acute treatment units. Treatment, not custody, is essential for the new program.

10. Extend the use of known effective methods of treatment. Psychiatry has much "know-how" and the public has a right to expect that it be used.

11. Relieve shortages in personnel by the employment of part-time psychiatrists and others.

12. Develop adequate rehabilitation and follow-up services in the communities to reduce recurrences.

13. Improve effective activities of state hospitals through the help of visitors and voluntary workers. Through them public information, public education, and public relations would be extended. This would help break down the isolation of state hospitals.

14. Enlist the interest and cooperation of women's clubs, church groups, service clubs,

Red Cross, Junior Leagues, and other organizations to improve mental health conditions.

15. In estimating the cost of new services for prevention and improved treatment services, consider the balancing savings due to reduction in the numbers requiring hospitalization, the fewer recurrences after discharge, the shortening of hospitalization, and the earlier resumption of work and productivity.

16. Locate new hospitals near population centers. This will facilitate therapeutic visits with relatives in the hospitals, home visits for convalescing patients, resumption of contact with friends, social activities, and part-time work, as steps in transition from hospital to community.

17. Improve accessibility of mental hospitals to top medical centers, diagnostic facilities, adequate consultants, emminent practitioners, and visiting medical school leaders. Employ visiting psychoanalysts and experienced psychotherapists to carry to state hospitals modern dynamic concepts which have so fructified extramural psychiatry.

18. Do not isolate state hospital personnel. Living in remote areas robs them and the community of interchange of ideas and stimulating normal human relationships. For their own mental hygiene they should live in normal communities.

TREATMENT OUTSIDE MENTAL HOSPITALS

19. Develop hospital facilities outside mental hospitals. Modern psychiatry has learned how to treat many patients in general hospitals on a short-time basis. These services should be extended, for individual and group therapy. Expand day hospitals, community clinics, health centers, home visiting and services to the increasing population of the aged.

COMMUNITY RESOURCES AND EDUCATION

20. Develop broad community programs of public education in mental hygiene on a nation-wide basis. Certain principles should become common knowledge and as widely accepted as pasteurization of milk and purification of water. Mental hygiene should be taught from grade school up. Provide courses, clinics, and counselling facilities in schools and colleges. There should be discussion groups in parent-teacher associations. Organize institutes for teachers, clergy, public health, visiting nurses, and others. Develop counselling services in connection with prenatal and well-baby clinics. Organize more child guidance clinics. Establish mental health services for adolescents, juvenile delinquents, and in the courts. Institute and extend premarital, marital, and family counselling services. Set up mental health, educational, and consultation services in industrial plants.

21. Work for the improvement of the level of community living. The impact of the wholesome community promotes mental health. Adequate housing, wholesome recreational facilities for children, adults and the aged, education for citizenship and social living as well as the "three R's" are important health potentials. These support parents in helping children develop individuality and responsibility.

RESEARCH

22. Planning on a nation-wide, long-term scale is essential for tackling this billion-dollar business. Appoint a commission to study and develop a national program with a budget of $500,000, such as the recent Commission on Health, Hospitalization, and Insurance for the medical health of the nation. (Commission for Financing of Hospital Care organized by American Hospital Association, a Life Insurance Company and the Blue Cross Commission.) Patch-work, stop-gap, sink-hole mental health programs are carrying us on a treadmill and really helping to maintain mental illness. These practices do not provide for the future. Needless suffering exists. Money and human resources are wasted. This is not a parochial problem but a national one. Tackle it and plan on a countrywide basis.

23. Establish a small committee of experts in social and political science and in government and business administration to study factors making for breakdown and success of *state* mental health programs and administration. The Flexner Report on medical education and the American College of Surgeons study on hospitals incalculably im-

proved medical education and the quality of hospital service. A Flexner Report or Commonwealth study on state mental health programs and administration is needed in this country.

24. Promote research as the best and ultimate means for prevention.

25. America has been a leader in industrial, applied, and, more recently, pure-science research. Let us turn our research ingenuity and technological skills to the mental health problem. It is a challenge to our scientific, economic, and humanitarian resourcefulness.

COMMENT

SOVIETIZED CHINESE MEDICINE

The *Chinese Medical Journal* is the official organ of the Chinese Medical Association and is published by the "People's Medical Publishers" in Peking. It is a venerable periodical, being now in its seventy-first year.

The leading article in the July-August 1953 number is titled "Learning from Advanced Soviet Medicine" and is written by the president of the Chinese Medical Association, Fu Lien-Chang, a Moscow-trained Communist. President Fu begins, "The Soviet Union is the Chinese people's truest friend." There follows a catalogue of medical miracles wrought in China since the "Soviet friends" came in and showed Chinese doctors how to do things. A new start from scratch had to be made because the fundamentals in the culture of "Old China" were all wrong.

> Soviet medical science is the most advanced in the world. It is based on the scientific method of dialectical materialism and its development is closely linked to the needs of the people. By mastering the science of dialectical materialism we could actually and correctly understand the physiological phenomena of the human body, investigate the causes of human disease and proceed to work out effective methods of prevention. . . . Our medical science of the past, copied from Britain, America, Germany, and Japan, was founded upon idealism and mechanical materialism and was therefore in many respects unscientific and divorced from the needs of the people. . . . We should oppose the blind worship of America and Britain and set ourselves against narrow conservatism. We should fully realize that vigorous growth and development of medical science in China is possible only through learning from the Soviet Union.

The medical and public health work supported by Western philanthropies and carried on in Old China for many years previous to the Red invasion, but of which President Fu takes no notice, is too well known to require comment.

The cover of the September-December 1952 issue of the *Chinese Medical Journal*—a thick double-number of 325 pages—bears the label in bold type "Special Number. Bacterial Warfare." The introductory editorial note states:

> Ever since January, 1952, the peace-loving peoples of Korea and Northeast China have been the target of a cruel and inhuman bacteriological war waged by the U. S. armed forces.

The material in this issue is a reproduction of a "Report of the International Scientific Commission for the Investigation of the Facts Concerning Bacterial Warfare in Korea and China (with appendices)." This report, published in October 1952, contained 666 pages and 103 plates. The text appearing in the *Chinese Medical Journal* is reduced to half that length by the omission of many of the appendices. The editorial note declares:

> The evidences it contains are so overwhelming that no amount of denial or prevarication on the part of the U. S. Government can alter an iota its responsibility for its crime against humanity.

Needless to say the Report includes "Depositions of captured U. S. airmen admitting their participation in bacteriological warfare."

Together with the September-December number, the *Chinese Medical Journal* published a 65-page Supplement, dated December 1952, containing "Views of Chinese Scientists on U. S. Bacterial Warfare." In his foreword the Editor says:

> In the Far East, the American imperialists' aggressive war of intervention in Korea, followed up by the launching of bacteriological warfare, is now being further intensified.

The International Scientific Commission came to its conclusions "reluctantly because its members had not been disposed to believe that such inhuman technique could have been put into execution." And the Editor adds:

> They could not believe their eyes when they saw this crowning monstrosity of U. S. imperialism and in the goodness of their hearts they could not accept that "man's inhumanity to man" could assume such hideous proportions."

This combined issue of the *Chinese Medical Journal* of nearly 400 pages with its

fantastic medley of illustrations deserves preservation as a collector's item for the curiosa file of the medical historian.

It remains to say that a quite special exhibition is staged in the March-April 1953 issue of the *Chinese Medical Journal* commemorating the death of Stalin. The cover is draped in black and a black-bordered portrait of Stalin furnishes a frontispiece. The leading article is by Mao Tse-Tung and is titled "The Greatest Friendship." A few quotations will be more than enough.

Joseph Vissarionovich Stalin, greatest genius of the present age, great teacher of the world Communist Movement, comrade-in-arms of the immortal Lenin, has departed from the world. . . . Comrade Stalin represents our entire New Era. . . . The cause of justice, of People's Democracy and Socialism has achieved victory on a tremendous scale over a territory containing one-third of the earth's population—more than 800 million people; moreover, the influence of this victory is spreading daily to every corner of the globe . . . an invincible force, a force that will guide those peoples who are already victorious from one fresh victory to another and lead all who are still groaning under the oppression of the old vicious capitalist world to strike courageously at the people's enemies. . . . The victory of socialist construction in the Soviet Union is not only a victory of the Soviet people, but also a common victory of the people of the whole world. Everyone knows that Comrade Stalin warmly loved the Chinese people. . . . He contributed his lofty wisdom to the problems of the Chinese revolution. . . . There is not the slightest doubt that the world camp of peace, democracy and Socialism headed by the Soviet Union will be still more united and become still more powerful . . . Any imperialist aggression will be smashed by us; all foul provocations will be of no avail . . . the great friendship between the peoples of China and the Soviet Union is unbreakable. . . . Let all imperialist aggressors and warmongers tremble before our great friendship.

Pace Ozymandias!

There follow a few remarks by Fu Lien-Chang, president of the Chinese Medical Association, among which:

We medical workers . . . must redouble our efforts to ensure the continued success of our movement to resist America and aid Korea, our struggle against bacteriological warfare and our mass health campaign. . . . The great friendship between our country and the Soviet Union will be everlasting and evergrowing. To learn from the Soviet Union is our steadfast aim. . . . All the enemy's plots and machinations will be utterly smashed by us!

Then, in "New China's Achievements in Health Work" by the Director of the Shanghai Medical College and Vice-President of the Chinese Medical Association, Dr. Kung Nai-Chuan informs his readers:

In order to realize the great significance of our achievements in public health since the liberation, it is necessary to understand the state of the people's health and of the public medical service before 1949 . . . the Koumintang regime was completely indifferent to the health and lives of the people. In the 20 years of its rule only a very limited number of medical and health institutions was established. Most of them were so poorly equipped and staffed that they existed in name only . . . the foundation of health work left by Old China was indeed very weak. After liberation, however, under the inspiring leadership of Chairman Mao Tse-Tung New China has made brilliant achievements in public medical service . . . etc.

In characteristically restrained language the marvels of New Red Chinese medicine are modestly set forth. Director Kung concludes:

The achievements enumerated above, just as Chairman Mao Tse-Tung has said of the victory of the people's revolution, are only the first step taken on the Ten Thousand Miles Long March.

This number of the *Chinese Medical Journal* ends with a report of the meeting of the Chinese Medical Association at Peking in December 1952 by President Fu Lien-Chang. His language follows the familiar pattern of his statements quoted above. He does not omit a final salute to the United States:

As we all know, as long as U. S. imperialism exists so long will there be machinations aimed against our safety. To protect our peaceful lives, therefore, our task is to continue our struggle against the enemy. . . . Our scientists have rightly challenged and exposed the unscientific and prevaricating statements put out by the enemy in attempting to deny their germ war crime. U. S. imperialists will continue their effort to deceive the public, and our scientists must be ready to deal with their false propaganda.

In all this mass of material that continues to occupy the pages of the official publication of the Chinese Medical Association and reflect the mass-mind of those in control there is of course nothing new. It is perhaps worthwhile, however, to place some of it on record here as indicating a type of medical journalism unfamiliar in the West but which currently dominates the formerly esteemed *Chinese Medical Journal.*

MEDICAL WRITING

The January 1954 issue of the *Mississippi Valley Medical Journal* (Quincy, Ill.) contains the papers comprising the Symposia on Medical Writing conducted at the 10th annual meeting of the American Medical Writers' Association, Springfield, Ill., in September 1953.

This is a timely presentation and deserves the attention of contributors to medical publications of whatever type. Contributors to psychiatric journals, perhaps more than others, can profitably seek guidance from the various authoritative reference texts that are now available.

Manuscripts submitted to this Journal fall into 3 general classes: (1) Excellently constructed articles with texts so clean as hardly to require any editorial retouching; happily manuscripts in this category are numerous and increasing. (2) Fairly well constructed articles requiring a moderate amount of revision, which might be regarded as normal editorial obligation. This category outnumber both the others together. (3) Articles so poorly written that editorial revision cannot be undertaken. Such manuscripts, which fortunately are not very numerous, have to be declined, or, perhaps, returned to their authors for rewriting.

Many reference works that writers may profitably consult for advice in preparing manuscripts and avoiding common faults of composition may be mentioned: *A Manual of Style,* Chicago: The University of Chicago Press; *Recurrent Maladies in Scholarly Writing,* edited by Eugene S. McCartney, Ann Arbor: The University of Michigan Press.

The Symposia on Medical Writing, reprinted from the *Mississippi Valley Medical Journal,* mentioned above, may be obtained at the printing cost of 20¢ by sending stamps to Dr. Harold Swanberg, Secretary, American Medical Writers' Association, W. C. U. Building, Quincy, Ill.

OCCAM'S RAZOR

William of Occam said: "It is vain to do with more what can be done with fewer." All scientific reasoning is based on the derived statement: "Entities are not to be multiplied without necessity." This rule is also called the *lex parsimoniae.* Complicated or involved explanations and procedures of all kinds are to be avoided when simpler ones suffice or achieve the desired results.

WORDS

Words are the physicians of a mind diseased.

—AESCHYLUS

A word fitly spoken is like apples of gold in pictures of silver.

—PROVERBS 25:11

And many a word at random spoken
May soothe or wound a heart that's broken.

—SCOTT

Think not that thy word and thine alone must be right.

—SOPHOCLES

Who is this that darkeneth counsel by words without knowledge?

—JOB 38:2

NEWS AND NOTES

Mental Hospital Construction.—In a survey by the Mental Hospital Architectural Study Project of The American Psychiatric Association, initiated in mid-1953, inquiries were sent to 194 public mental hospitals. Replies were received from 151 in 46 states (78%). Tabulation of the replies yielded the following data:

New Mental Hospitals (Complete Plants)
- Built since 1946..... 3
- Under construction 3
- Planned in next 5 years.. 2

Receiving and Intensive Treatment Buildings
- Built since 1946..... 59
- Under construction 4
- Planned in next 5 years.. 19

Geriatric Buildings
- Built since 1946..... 58
- Under construction 2
- Planned in next 5 years.. 15

Medical and Surgical Buildings
- Built since 1946..... 28
- Under construction 4
- Planned in next 5 years.. 11

Continued Treatment Buildings
- Built since 1946..... 75
- Under construction 10
- Planned in next 5 years.. 64

Convalescent Buildings
- Built since 1946..... 18
- Under construction 2
- Planned in next 5 years.. 4

Buildings for Disturbed Patients
- Built since 1946..... 24
- Under construction 8
- Planned in next 5 years.. 8

Dr. John L. Smalldon, director of the Study Project, notes that despite the considerable new construction reported, much more is needed to provide adequate accommodation for the mental patients requiring hospital care.

Mental hospitals that are now planning new construction will find it to their advantage to consult with the project staff since valuable data have already been collected which may prove helpful to them.

Communications should be addressed to the Director, Mental Hospital Architectural Study Project, American Psychiatric Association, 1785 Massachusetts Avenue, N. W., Washington 6, D. C.

Aging and Retirement.— The *American Journal of Sociology* publishes in the January 1954 number an important symposium on aging and retirement. This is a valuable contribution to geriatric literature as well as to the study of the economic and social problems of persons after retiring age.

Twelve contributors deal with various aspect of the subject. Prof. Ernest W. Burgess, who is special editor for this issue of the *American Journal of Sociology,* contributes to the symposium a paper entitled "Social Relations, Activities, and Personal Adjustment."

Brooklyn Psychiatric Society.—The following officers have been elected for 1954-55: President, Dr. Joseph L. Abramson; vice-president, Dr. Morton H. Hand; secretary-treasurer, Dr. David M. Engelhardt. Elected to the executive committee for 1 year were: Drs. Morris Riemer and Julius Nelson; for 2 years, Drs. Nathan Beckenstein and Matthew Brody. Members of the coordinating committee are Drs. Sam Parker and David M. Engelhardt.

Problems of the Aging.—Beginning April 15, 1954, Dr. Martin Gumpert, New York City, will deliver a 6-lecture series on problems of the aging at the Kessler Institute For Rehabilitation, West Orange, New Jersey. The lectures, to be given from 7:30-9:00 p.m. on consecutive Thursdays, are open to the public and will be designed primarily for a lay audience.

Admission to the 6 lectures is $5.00 or $1.00 per single lecture. For further information write Miss Joyce Collins, Registrar, Kessler Institute For Rehabilitation, West Orange, New Jersey.

1954 Industrial Health Conference.—This conference will be held at the Hotel Sherman, Chicago, Illinois, from April 24-30, 1954. Registration fee is $3.00.

Associations attending the conference, which will include business and scientific sessions, are the Industrial Medical Association, American Conference of Governmental Industrial Hygienists, American Industrial Hygiene Association, American Association of Industrial Dentists, American Association of Industrial Nurses, Inc., and the U. S. Navy Industrial Health Conference.

For information and reservations write Miss Catherine Lowery, Reservations Manager, Industrial Health Conference, Hotel Sherman, Chicago 1, Illinois.

Carnegie Corporation Grants for Education and Mental Health.—In its forty-second annual report, stressing support of higher education as one of its central aims, the Carnegie Corporation of New York lists grants totaling $5,037,113 for the 1952-53 fiscal year, bringing the total amount given out by this foundation since its establishment in 1911 to $236,960,147. Founded by Andrew Carnegie "for the advancement and diffusion of knowledge and understanding," the Corporation makes grants only from the income of its assets.

The report states: "American higher education is without parallel in the history of human societies. No other nation has ever undertaken to provide advanced formal education for so large a proportion of its youth; and no other nation has ever tried through its system of higher education to serve such an astonishing variety of needs for the individual and society."

More than two million dollars went to support educational programs during the year under review, and in the social sciences, another major interest of the Corporation, $771,200 supported 16 special projects. Among these, $100,000 was awarded to the Haskins Laboratories in New York for psychophysical research on auditory patterns in speech perception and $50,000 to the National Association of Mental Health toward support of its educational program.

Dr. Lawrence C. Kolb to Head N. Y. Psychiatric Institute.—Announced jointly by Dr. Newton Bigelow, Commissioner of Mental Hygience, and Dr. Willard C. Rappleye, dean of the faculty of medicine, is the appointment of Dr. Lawrence C. Kolb of the Mayo Clinic, Rochester, Minn., as director of the New York State Psychiatric Institute and professor of psychiatry, Columbia University.

At the Psychiatric Institute, which is the hub of the broad research and teaching program of the New York State Department of Mental Hygiene, Dr. Kolb succeeds Dr. Nolan D. C. Lewis who retired from state service last September.

A native of Baltimore, Md., Dr. Kolb received his B. A. degree from Trinity College, Dublin University, Dublin, Ireland, and was graduated in medicine from Johns Hopkins University. Following several years as instructor in neurology at Johns Hopkins University, he served with the U. S. Naval Reserve, holding the rank of commander in the medical corps. Between this service period and that at the Mayo Clinic, Dr. Kolb was consultant to the U. S. Naval Hospital, Bethesda, Md., and director of research projects at the National Institute of Mental Health.

He assumes his new duties at New York State Psychiatric Institute and Hospital and Columbia University July 1, 1954.

Outpatient Clinic Established in St. Paul.—Dr. Clarence J. Rowe will be the director of a newly established outpatient psychiatric clinic for adults in St. Paul, Minnesota, according to Mrs. James E. Kelley, president of the Hamm Foundation, which is providing for the establishment of the clinic.

The psychiatric center will provide free or part-pay treatment of mental illness for persons who are unable to meet the cost of private care. Only patients referred by phy-

sicians, public health agencies, other outpatient clinics, the courts, and social agencies will be accepted.

Location of the clinic, not yet definitely determined, will probable be in a downtown office building.

Dr. Rowe is an assistant professor in the department of psychiatry and neurology in the School of Medicine of the University of Minnesota. His appointment becomes effective July 1, at which time the clinic is expected to begin operation.

New Jersey Neuropsychiatric Association Elects Officers.—For the calendar year 1954, this Association's newly elected officers are: Dr. Frank Pignataro, Red Bank, N. J., president; Dr. Lawrence Evans, Englewood, president-elect; Dr. Ira Ross, Newark, secretary; Dr. Evelyn Ivey, Morristown, treasurer. Trustees are Drs. Robert Garber, Skillman; Leon Reznikoff, Weehawken; David McCreight, Marlboro; Thomas Fitch, Plainfield; William Furst, East Orange; and Luman Tenney, Princeton.

VOILA LA DIFFERENCE

An anecdote is told of Voltaire and an Englishman, which admirably illustrates [the dependence of mind upon body]. The conversation between the two happening to turn upon the miseries of life, the *ennui* of the Frenchman and the spleen of the Englishman so far agreed that they decided existence was not worth having, and determined to commit suicide together on the following morning. The Englishman arrived punctually, provided with the means of destruction, but the Frenchman was no longer in a suicidal humour, for on the other proceeding to the execution of their project, Voltaire amusingly interposed: *"Pardonnez-moi, monsieur, mais mon lavement a très bien opéré ce matin, et cela a changé toutes ces ideés là."*

—Andrew Wynter, M. D., M.R.C.P. Lond.,
The Borderline of Insanity, 1875.

BOOK REVIEWS

Die Körperlichen Behandlungsverfahren in Der Psychiatrie. Band I: Die Insulinbehandlung. By *Max Müller.* (Stuttgart: Georg Thieme Verlag, 1952.)

In a brief review, it is difficult to do jsutice to the comprehensiveness and general accuracy of this book by Doctor Max Müller, entitled "Projected Series of Tests and Handbooks" under the over-all title *Die Körperlichen Behandlunsverfahren in der Psychiatrie."* In this one small volume he has managed to bring together the accumulation of facts gathered in 25 years of almost world-wide experience with insulin therapy. It is quite unmistakably written out of knowledge not only of his own years of clinical work but also, as the bibliography testifies, out of an exhaustive acquaintance with the work in this field wherever it has been done.

Professor Müller himself belongs to that group of medical men who were among the first to appreciate the potentialities of this new form of psychiatric treatment, and has been employing it on a large scale for more than two decades. His book bears witness to his intimate knowledge and great understanding of the intricacies of the insulin therapy.

Doctor Müller is not an "armchair strategist," giving out advice without the prior testing of active, personal experience. His descriptions of the techniques of application of the insulin treatment could hardly be improved. He gives a wealth of detailed practical information which will be invaluable to the therapist applying this treatment. Only a thoroughly experienced physician, of whom Professor Müller is an outstanding example, is aware of the enormous importance of these details which the less experienced so frequently either overlook or do not recognize. A careful study of this book will help the conscientious therapist to achieve the success so important to the recovery of his patient, since it will supply answers to a wide variety of questions that may arise, as well as enriching his general knowledge of the Sakel technique.

Doctor Müller offers a thorough description of the psychiatrically therapeutic attributes of insulin. His citations from the literature are ample and definitive. He gives exhaustive information on how to individualize the use of insulin to achieve the greatest possible therapeutic success. And he corroborates and re-emphasizes the distinction, to which this reviewer had called attention in his earliest writings on the insulin therapy, between the useful and nondangerous early convulsion and the dangerous but sometimes necessary late convulsion, at the same time giving instructions on how to deal with this later situation.

It is, however, to be hoped that in the next edition of this handbook, Professor Müller will go into a little more detail concerning the place of the so-called "dry-shock," or convulsion, in the insulin treatment. Of course, Doctor Müller himself knows that in the course of the treatment the convulsion is just a different physiological high-point from the coma, although it occurs less frequently and is less predictable.

He touches on this point in scattered parts of the book. But in cursory reading it might be overlooked and therefore give rise to a false appraisal of the facts. If all the scattered references were brought together in the early part of the book, this would serve to emphasize more clearly the basic importance of both convulsion and coma as the two intrinsic forms of the insulin shock. Juxtaposing their particular different roles in achieving specific therapeutic results would further reinforce this necessary emphasis, and avoid the serious misunderstanding of the vital importance of each of these factors to the total shock treatment. Unfortunately, this very misunderstanding has already become wide-spread as is seen by the substitution of such partial mechanics as electrical or metrazol convulsions for the full insulin therapy.

Doctor Müller also discusses the rationale underlying the original hypothetical assumptions of the Sakel treatment, namely, that the cause of schizophrenia stems from metabolic and endocrinologic, toxic disturbances of the brain cells. The author presents a significant mass of evidence confirming this thesis, as found in the literature. He considers at some length and with great clarity all the original major and minor clinical observations which were reported in the reviewer's presentation of the insulin treatment. He reminds his readers that from its inception, and in spite of the fact that the main effect of the treatment seemed to be physiological, the Sakel method laid emphasis on the necessity and value of a psychotherapeutic adjuvant to the use of insulin. Since this has frequently been overlooked, it is good to see it recalled so clearly.

Certainly there are some minor errors in Doctor Müller's book. A man who has so long and actively used and advocated the Sakel treatment and keeps himself constantly informed on the ever-mounting publications concerning it, is bound to fall into occasional confusions of dates and small misinterpretations of data. However, these may well be overlooked in the face of the general excellence of the presentation Doctor Müller has given us, his thoroughness and his objectivity. The book is to be highly recommended and should not be missing from the desk of anyone who is employing the shock treatment.

Manfred Sakel, M. D.,
New York City.

The Communist Conspiracy. By *Stephen King-Hall.* (London: Constable & Co., Ltd., 1953. Price: 15s; New York: Macmillan. Price: $3.00; Toronto: Longmans, Green & Co., Price: $3.00.)

If psychiatry, starting out as treatment of mental disease, expanded to take in measures for preven-

tion; then further, taking a positive view, emphasized all-round promotion of individual mental health; and if then, realizing that the individual is naught except as a social unit, it found a part to play in the field of social sanity; and if it thinks of "society" as meaning the people of the world, both those in the open fields and those hemmed in behind an iron curtain, then psychiatrists will profit by studying this book; and not only psychiatrists but psychologists concerned with psychological warfare, sociologists analyzing the ingredients that make up such a compound as Soviet Russia, in fact everyone who requires a textbook of Communist aims and methods and of possible ways of averting the world blight that Communism threatens.

The Communist Conspiracy is such a textbook. It is not too bulky for convenience (225 pages) and yet amply detailed to give essential facts, many of which are not accessible to the commonality of readers, and many of which will prove shocking, perhaps incredible, to those not fully informed.

The important feature of this book is the authenticity of the data compiled—namely official statements of Communist leaders and organs. For the guidance of party members the Hitlerian pattern of plain talk is followed, for the rest of the world the technique of the "false flag."

Commander King-Hall, a former M. P., visited Moscow in 1945 as a member of a parliamentary delegation that conferred with Stalin in the Kremlin. He had occasion then to observe official Communist double talk. While Stalin was expressing his appreciation of the invaluable help Russia had received from Britain and America the official Communist press was full of complaints that Russia's allies were not fighting.

Systematic double talk as an accepted Communist instrument of aggression—saying one thing and meaning the opposite—is a subject to which the author gives extended and well-documented attention. Chapter 10, titled "Prostituting Peace," describes the continuous intensive campaign to advertise Russia as the one great peace-loving and peace-promoting country in the world, while the West, and particularly the United States and Great Britain, who do not see eye to eye with the Kremlin as to the meaning of the word "peace" are *ipso facto* the warmongers and the enemies of world society. Peace organizations, Communist sponsored, have sprung up in various parts of the world and have attracted numerous careless customers who have signed their names probably without realizing, in some cases, that they were giving their adherence to Red subversive activities. Moscow has taken special pains to gain dupes in this way among the clergy,[1] among teachers, artists and writers, among doctors and science workers, among women's and youth organizations, everywhere among the peace-at-any-pricers.

[1] Evidence is before the Un-American Activities Committee of the U. S. House of Representatives (New York Times, Sept. 12, 1953) to the effect that, despite disclaimers in high places, the clergy is no more immune to Red infection than other occupational groups.

From the beginning a dominating objective has been the communizing of the trade unions. The gospel according to Lenin reads: "We must be able to resort to all sorts of stratagems, manoeuvres, illegal methods, evasions and subterfuges only so as to get into the trade unions, to remain in them, and to carry on Communist work within them at all costs." The guiding pattern is that of trade unions in Russia—"The Party is the controlling force in all these organizations" (Kaganovich, 1933). Shvernik, head of the Soviet trade unions, described them as "schools of Communism, the transmission belt from the Party to the masses" (1933). "The Party is responsible for the general line adopted by the trade unions" (Moscow Radio, 1951). When the unions in the several countries have been lined up concerted action through the World Federation of Trade Unions will be directed toward overthrowing, with force if necessary, national governments in all non-Communist countries. The early stages of the campaign are already well known—waving the false flag of peace, fomenting strikes and sabotage, urging disarmament and destruction of atomic weapons, and by preaching pacifism generally, with lurid pictures of the horrors of war, to lower morale and soften resistance in countries that might thus more easily become victims when the hour of attack shall strike.

The policy of aggression is shown to have been followed throughout with advances and tactical recessions, infinite detail in manoeuvring, radical shifting in strategy to meet contingencies as they arise; and withal "to capture the minds of men, not in the belly of a Trojan horse but on the wings of a Picasso dove cooing the word PEACE."

Marshalling the evidence of Russia's Juggernaut progress in the subjugation of racial groups within and other nations without the U.S.S.R., the author exhibits the ultimate goal of Communist aggression which demands "world control and absolute centralization of all aspects of the life of the world's population under Moscow control. It is a *total* imperialism."

In the Kremlin vocabulary there are 2 kinds of wars—wicked and holy. An example of the former is, of course, the "aggressive" war of the UN in Korea. The other kind Soviet leaders explicitly define: "We view with favor any war which is designed to serve the aims of Russian policy." "We support a liberating anti-imperialist revolutionary war despite the fact that such a war, as is well known, is not only not devoid of 'horrors of bloodshed,' but even abounds in such horrors" (Stalin). "What grandeur, beauty and nobility distinguish the just, liberating people's war. The highest, most noble qualities of the people's spirit are revealed in the bloody trials of battle, in the soldier's arduous task . . ." (Moscow Literary Gazette, June 21, 1951). "If war is waged by the proletariat. . . with the object of strengthening and extending Socialism, such a war is legitimate and 'holy'" (Lenin).

Having thus established that any war initiated by Russia for the destruction of capitalist states in the rest of the world is glorious and holy, the Kremlin

proceeds to show that such a war, however delayed, is inevitable. And just here is a characteristic example of Communist double talk. When speaking with the voice of the dove they assure us that it is perfectly possible for Communism and capitalism to live peaceably side by side. When speaking with the voice of Lenin: "The existence of the Soviet Republic side by side with imperialist states for a long time is unthinkable. One or the other must triumph in the end. And before that end supervenes a series of frightful collisions between the Soviet Republic and the bourgeois states will be inevitable."

The facts of Russia's long-drawn-out and continuing warfare with the free world Stephen King-Hall has clearly and authoritatively set forth in this textbook—authoritatively because the statements of facts come directly from the mouths of Communist leaders themselves.

Perusing this book with its pictures of Utopia in the U.S.S.R. one's thoughts turn to that other kindred Utopia horridly depicted in George Orwell's *Nineteen Eighty-Four* and to the party slogan that seems like an echo from behind the Iron Curtain.

"War is Peace.
Freedom is Slavery.
Ignorance is Strength."

C. B. F.

THE INSIDE STORY. By *Fritz Redlich, M. D. and June Bingham.* (New York: Knopf, 1953. Price: $4.00.)

Every now and then those of us who take home from the office our daily new book to read in the field of psychiatry, psychology, sociology, biology, general science, etc. get a big surprise. This book is one. It turns out to be interesting without being an intellectual chore. So many new ideas and formulations are coming out now that we have to run as fast as we can to stay where we are. But here is a book that doesn't tell us anything new. It presents in a new way facts that are "old" to us, but new and valuable to unseen thousands of readers who are groping for information about themselves which they can read without too much pain and without confusion. This book, for all that it is "old stuff" to us, is presented in so brilliantly clever and interesting a way that every psychiatrist will enjoy it.

Here's the idea: On nearly every page there is a cartoon. They are clever cartoons, taken from a score of current publications such as *The New Yorker* and the *Saturday Evening Post.* They are interspersed in the text, apparently haphazardly, but this distribution is really not haphazard; indeed, and here is one of the cleverest things of all: the text in the vicinity of the cartoon deals with the very point which the cartoon makes. "A baby sister is all right," says a little boy wheeling a pram which has been stopped by an admiring passerby, "but there are a lot of things we needed worse." And right beside this picture is text about sibling rivalry and self-love and the child's reaction to the withdrawal of parental love and so forth. "It is a little play they worked out," says the kindergarten teacher in a cartoon of a bunch of little kids admiring one of their number who has undressed herself, and the text (pretending that it hasn't even noticed the cartoon), goes right along about how the small child's "interest in its own body usually precedes interest in other people's bodies. This subsequent curiosity. . . ."

The text itself is written in a sprightly, lucid, simple English style which, even without cartoons, would be good; supplemented by them, it is superb. Perhaps nothing illustrates the intelligent planning of the book better than Fritz Redlich's "prescription," written on a prescription blank, if you please, which serves as the introduction: "Look at the cartoons," it says, "enjoy them as much as you can. Read the text when you feel like it. . . . Let some time pass. . . . Look at the cartoons again. You may know more about them and yourself and enjoy them even more."

I can't end this review without commenting on the glossary which does the very sensible and proper thing of defining words *in two ways*—in the sense conveyed by the word to the doctor and in the sense in which it is often used by laymen. The contrast of this dual definition makes most interesting reading. Look for example at "ego." You can imagine the contrast here without my quoting it, or look at ambivalence, or personality, or phobia, or mania.

There is a school of thought which holds that no book review is adequate if it contains no criticisms. The only criticism of this book I could think of relates to the bibliography. It is not bad, but I think it could be better. Some books are included which I think are too technical and some which I like are omitted. And it would be in keeping with the clarity and uniqueness of this book if the general thesis of some of the items in the bibliography were cited briefly so that the readers would have somthing to go on, aside from the title. And just to show how unfair and biased I am, there actually *is* some comment on two or three of the books, including a book I wrote, but I don't agree with the summary given for it. So you can write off all the rest of this captious criticism, and buy two copies of the book, one for your office waiting room and one for your bedside table.

KARL A. MENNINGER, M. D.,
Topeka, Kansas.

HOPE FOR THE TROUBLED. By *Lucy Freeman.* (New York: Crown Publishers, 1953.)

This book, written by a former newspaper reporter with a strong bias in favor of psychoanalysis, may do much to vitiate the progress made in psychiatric research during the past 18 years through electrical, insulin, and other physiological methods. The author, who was herself "sorely troubled" before her prolonged psychoanalysis, described herself and her personal problems in extremely frank detail in her first book *Fight Against Fears,* written 3 years ago. Her utter frankness in describing her mental catharsis is phenomenal, and that book will stand as an important document that will help any person considering psychoanalysis, to understand what that treatment involves.

It is necessary however to consider her latest literary effort in the light of the bias she so frankly expresses. In Chapter 13 titled "There Is No Magic," her hurricane-like denunciation of the various physiological methods that have brought a ray of hope to multitudes of patients and their families will do untold harm to many seeking help, who may be deterred from seeking it where it is available.

Miss Freeman attempts to generalize on the basis of one case—her own—and draws wholly unwarranted conclusions which she propounds as authentic advice for all other troubled persons, neurotic, psychotic, or otherwise. Nothing could be more unscientific or injurious than such advice. Long ago the medical profession learned that no single case is adequate for drawing sweeping conclusions regarding the treatment of others.

The chief defect of the book therefore, is the author's utter lack of experience with the treatment methods she castigates. One would hardly expect a person who had never held a scalpel or observed an operation, to pose as an authority on laparotomy! Obviously she conducted a tremendous reading research before writing this book, but from this reading she has not learned that the aim and purpose of all physiological methods is to aid the psychotherapeutic effort, psychoanalytic or otherwise, in those persons not amenable to this treatment, because of the existent psychosis. Psychoanalysis is of little avail if the patient suicides during the early stages of an attempted analysis!

The uncritical reader will be left with the implication that the exaggerated claims of less than a handful of analysts are the final word in the treatment of schizophrenia—an opinion that is not endorsed by their analytic colleagues. The reader will also be led to believe that the information and opinions in the booklet *Psychiatric Shock Therapy* published by the National Association for Mental Health are to be rejected, though it was a careful survey reporting experience gained from over 250,000 patients from all parts of the country, treated by shock therapy. He would also be led to believe that the many hundreds of scientific papers demonstrating the value of shock therapies, published in medical and psychiatric journals during the past 20 years, should be ignored by present-day psychiatrists. Consider but one sphere where such a rash course would be tragic—the treatment of the suicidally inclined: Should we abandon shock treatment which has given the greatest hope in severe melancholia and regress in our psychiatric therapy to the higher suicidal death rate which prevailed before shock therapy was introduced? Would our medical colleagues in other fields call this progress?

Knowing many able psychoanalytic confreres as I do, I believe they would share with me the conviction that Miss Freeman has done to both psychiatry and psychoanalysis a great disservice. It is interesting to note, by the way, that no psychoanalyst wrote an endorsing introduction to this book.

The smoke pall created by the chapter "Outposts of Terror," the author's concept of our mental hospitals, should serve as a challenge for all psychiatrists serving in our state, county and veterans hospitals, to inform the public of the progress over the years, and let the public judge whether these hospitals are "Outposts of Terror" or Havens of Help for many troubled people.

The author, although inexperienced in psychiatry, does have a facile pen, but the lay public is not always able to evaluate unauthentic propaganda properly, in contrast with sound professional advice from a doctor who has had actual experience with psychiatric patients.

How unfortunate that such a gifted writer should allow her emotional bias to nullify the book's value to the laity when it's title offers such promise!

T. A. Robie, M. D.,
East Orange, N. J.

The British Encyclopaedia of Medical Practice. Medical Progress—1953. Edited by *The Lord Horder, G.C.V.P., M.D., F.R..C.P.* (London: Butterworth & Co., 1953.)

Increasing specialization in medicine puts emphasis on the same problem as arises in the development of society—the division of labor. This means that there is all the more need for greater integration and co-operation among the laborers as things become more numerous, more different, and therefore more complex. As Hughlings Jackson so truly said, "specialists have to justify their differentiation," and they can do this only by realizing that increasing differentiation without increasing definiteness would be only confusion though differentiation is not the whole of the doctrine of evolution. The factors in progressing evolution, according to Herbert Spencer (to whom Jackson felt himself so profoundly indebted) are: (1) differentiation, increasing; (2) definiteness, increasing: (3) integration, and (4) increasing co-operation.

In the 1953 volume of *Medical Progress* is expressed the realization of this theme. Part I is devoted to Critical Surveys of various specialties. The advances in applied physiology and biochemistry, have, of necessity, thrown the specialties of surgery, anaesthesia, obstetrics, and gynecology, etc. into the province of the physician and the physiologist. Charles Wells in his Survey of Surgery points out the value to all concerned and to all medical fields in the development of this closer and true partnership. More than ever then does this volume illustrate those factors making for the progress of evolution in the society of medical laborers—those of integration, co-ordination and co-operation—all increasing. The Critical Surveys cover different lesser divisions of medicine and surgery each year, so that over a time all are included. Among the list now is, for example, one on Paediatric Surgery, and one on Urethral Injuries and Diseases. The latter is most comprehensive. Part III as usual consists of a judicious choice of abstracts of the literature. This volume maintains the standard of previous years.

Trevor Owen, M. D.,
University of Toronto.

SCIENTIFIC AND TECHNICAL EXHIBITS

Convention Hall, Kiel Auditorium, St. Louis, Missouri

The members of The American Psychiatric Association have always shown interest in the Exhibit Sections of the meeting and, therefore, the exhibits have been carefully selected for newness and applicability in this particular field of medical practice. You are cordially invited to visit the exhibit sections, and any comments or suggestions you have to offer will be welcome.

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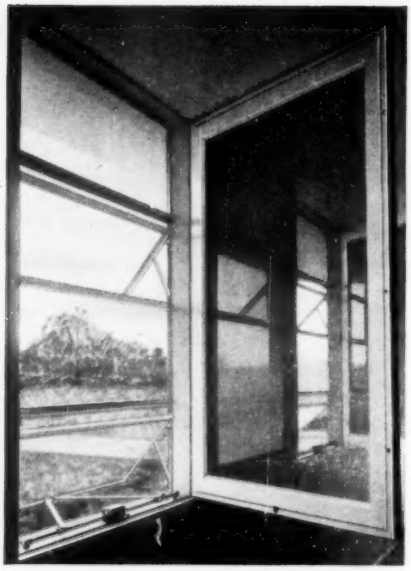

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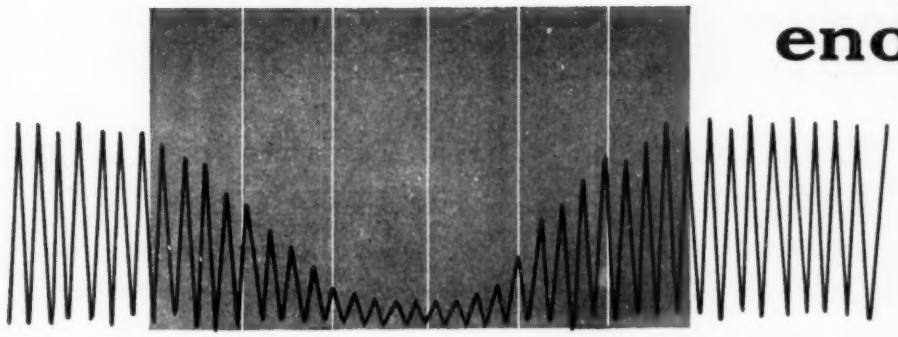

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